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THE
EGGS OF NORTH AMERICAN
BIRDS.

By C. J. Maynard,

*Author of "The Naturalist's Guide," "The Birds of the Bahamas,"
etc., etc., etc.*



Illustrated with hand-colored plates.



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EGGS
OF
NORTH AMERICAN BIRDS

BY
Johnson
CHAS. J. MAYNARD.

41

ILLUSTRATED
WITH TEN HAND-COLORED PLATES.

BOSTON:
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INTRODUCTION.

THE present work on the Eggs of North American Birds embodies the results of my studies on this subject during the past thirty years. During this time, many thousand specimens have been examined and notes made on them. Besides this, I have, when necessary, supplemented my own observations with those of others, and have consulted all available works upon the subject for this purpose. But, unless so stated, I am responsible for the descriptions.

I have deemed it quite unnecessary to repeat descriptions of the eggs of allied species where the differences in the average specimens are indistinguishable, but have simply stated this fact. All of the names of the species and sub-species of birds which occur within the prescribed limits are included in the work; and, even if their eggs are unknown, the breeding range, when known, is given. No eggs are described unless the identification of the specimen is absolutely correct.

In the matter of nomenclature, I have followed that of the American Ornithologists' Union, hoping thereby to secure unchanging uniformity of names, while the boundary lines established by that body are also used as defining the limits of the North American avifauna. I have, however, made a few minor changes, where I have personally differed in opinion as to the specific or sub-specific rank of certain birds. The changes, however, are few and unimportant, as I have not considered a

work of this description exactly a fit place for the free expression of any ideas that I may chance to have upon these subjects.

As plates wherein eggs of each species of bird could be represented would not only make a very expensive work, but would also be unnecessary, I have only figured what I consider type eggs, not of groups of birds, but of types of the forms and patterns of coloration of North American Eggs. These plates have been carefully colored by hand, by Mrs. Maynard, from the eggs.

The dimensions of the eggs are in inches and hundredths of inches, and usually the measurement of the largest and smallest specimens in a large series is given.

The appearance of this work is the actualization of one of the projects that I have had in mind for many years, and in its completed state I now present the volume to the public. In closing, I take pleasure in thanking my many friends for their repeated acts of kindness to which this and my other works owe their success.

C. J. MAYNARD.

NEWTONVILLE, MASS.

August 1, 1889.

Nov. 5 83 1.

THE
EGGS OF NORTH AMERICAN BIRDS.

ORDER I.—PYGOPODES. Diving Birds.

Eggs, extremely variable in form and color, either plain or spotted. Nesting habits, dissimilar.

FAMILY I.—PODICIPIDÆ. GREBES.

Eggs, oval, bluish green, covered with a chalky incrustation, which in the freshly deposited egg is white, but quickly becomes stained.

Nests, composed of a mass of weeds, grasses, etc., placed in the water.

1. WESTERN GREBE, *Aechmophorus occidentalis*. Eggs, 3, 4, or 5; $2.25 + 1.50$ to $2.35 + 1.55$. The largest of the Grebes. Breeds throughout Western America, eastward to Manitoba, in early June.

2. HOLBELL'S GREBE, *Colymbus holboellii*. Eggs, 8 to 10; $1.35 + 2.00$ to $1.40 + 2.10$. Breeds throughout extreme Northern North America and Greenland, late in June.

3. HORNED GREBE, *Colymbus auritus*. Eggs, 4 to 6; $1.15 + 1.70$ to $1.20 + 1.75$. Smaller in size than those of No. 6. Breeds throughout North America from Northern United States, northward, late in June.

4. AMERICAN EARED GREBE, *Colymbus nigricollis californicus*. Eggs, 4 to 6; $1.70 + 1.80$ to $1.18 + 1.33$. Breeds throughout Northern and Western North America west of the Mississippi Valley, late in June.

5. ST. DOMINGO GREBE, *Colymbus dominicus*. Eggs, unknown, but they must be the smallest of all Grebes' eggs.

Breeds in Texas, Southern California, South America, south to Paraguay, and West Indies.

6. PIED-BILLED GREBE, *Podilymbus podiceps*. (Type, Plate I.) Eggs, 4 to 7; $1.15 + 1.65$ to $1.25 + 1.85$. The most common species. Breeds throughout North America and South America, Buenos Ayres, West Indies, and Bermudas, late in June in the more northern localities.

FAMILY II.—URINATORIDÆ. LOONS.

Eggs, deep greenish-brown, varying individually in intensity of color, spotted and blotched with very dark brown.

Nests, composed of a mass of grass, weeds, etc., placed in marshy places near the water.

7. LOON, *Urinator imber*. (Type, Plate I.) Eggs, 2 or 3; $2.15 + 3.50$ to $2.35 + 3.85$. Breeds throughout the Northern States, northward, during the early part of June.

8. YELLOW-BILLED LOON, *Urinator adamsii*. Eggs, indistinguishable from those of No. 8. Breeds in Arctic America, west of Hudson Bay.

9. BLACK-THROATED LOON, *Urinator arcticus*. Eggs, 2 or 3; $1.90 + 2.90$ to $2.00 + 3.00$. Smaller than those of No. 1. Breeds in northern part of Northern Hemisphere, in early June.

10. PACIFIC LOON, *Urinator pacificus*. Eggs, 2 or 3; $1.85 + 2.10$ to $1.95 + 2.80$. Breeds on Northern Pacific coast of North America, in June.

11. RED-THROATED LOON, *Urinator lumme*. Eggs, 2 or 3; $1.75 + 2.65$ to $1.90 + 3.00$. Breeds in northern part of Northern Hemisphere.

FAMILY III.—ALCIDÆ. AUKS, MURRES, and PUFFINS.

Eggs, pyriform, occasionally white, but often brilliantly colored and conspicuously marked. No material used for the nests.

12. TUFTED PUFFIN, *Lunda cirrhata*. Eggs, 1, white; $1.40 + 2.40$ to $1.85 + 3.00$. Larger than those of No. 13. Breeds on the coasts and islands of North Pacific, in July.

13. PUFFIN, *Fratercula arctica*. Eggs, white when fresh; occasionally mottled with greenish and lilac; $1.20 + 2.30$ to $1.70 + 2.80$; deposited in burrows dug by the birds. Breeds on coasts and islands of Eastern North America, from Bay of Fundy, northward, in first week in July. The most common species.

13a. LARGE-BILLED PUFFIN, *Fratercula arctica glacialis*. Eggs, not to be distinguished from those of No. 13. Breeds on coast and islands of North Atlantic, from Spitzbergen to Baffin's Bay.

14. HORNED PUFFIN, *Fratercula corniculata*. Eggs, 1, oblong oval, white; $1.75 + 2.75$ to $1.80 + 2.80$. Breeds on coasts and islands of North Pacific, in rocky crevices, in May. Known from those of No. 13 by the more elongated form.

15. RHINOCEROS AUKLET, *Cerorhinca monocerata*. Eggs, 1, oval, dirty white, not unlike that of a common hen; $1.81 + 2.61$ to $1.85 + 2.65$. Breeds on coast and islands of both coasts of Pacific, from California and Japan, northward, in burrows, in May.

16. CASSIN'S AUKLET, *Ptychoramphus alentius*. Eggs, 1, oval or oblong oval, pure white; $1.25 + 1.80$ to $1.30 + 1.95$. Breeds on Pacific coast of North America, from Farallones, northward, in burrows.

17. PAROQUET AUKLET, *Cyclorhynchus psittaculus*. Eggs, oval or oblong, white; $1.45 + 2.25$ to $1.50 + 2.35$. Breeds on coast and islands of North Pacific, from Aleutian to Kurile Islands, northward, on naked rocks, early in May.

18. CRESTED AUKLET, *Simorhynchus cristatus*. Eggs, 1, oval, white, with the shell roughened; $1.40 + 2.10$ to $1.45 + 2.15$. Breeds on coasts and islands of North Pacific, from Kodiak and Japan, northward, under rocks and in crevices, early in May.

19. WHISKERED AUKLET, *Simorhynchus pygmaeus*. Eggs, unknown. Breeds on coast and islands of North Pacific, from Unalashka through the Aleutian chain to Kamtschatka.

20. LEAST AUKLET, *Simorhynchus pusillus*. Eggs, 1, oblong oval, somewhat pointed at smaller end, but somewhat variable in form, white; $1.12 + 1.55$ to $1.13 + 1.63$. Breeds on coast and islands of North Pacific, from Sitka and Japan to Bering's Strait, under rocks, the first week in June.

21. ANCIENT MURRELET, *Synthliboramphus antiquus*. Eggs, 2, oval, pale buff, with longitudinal markings of pale gray and brown; $1.45 + 2.15$ to $1.55 + 2.50$. Breeds on the coast and islands of North Pacific, from Sitka and Japan, northward, in burrows on the face of banks, early in June.

22. TEMMINCK'S MURRELET, *Synthliboramphus wumizusume*. Eggs, unknown. Breeds on coast and islands of North Pacific, from Washington Territory and Japan, and northward.

23. MARBLED MURRELET, *Brachyramphus marmoratus*. Eggs, unknown. Breeds on coast of North Pacific, from Vancouver Island, and northward.

24. KITTLITZ'S MURRELET, *Brachyramphus kittlitzii*. Eggs, unknown. Breeds on Kamtschatka and the Aleutian Islands, east to Unalashka.

25. XANTUS'S MURRELET, *Brachyramphus hypoleucus*. Eggs, unknown. Breeds on the coast of Southern California, from San Diego to Cape St. Lucas.

26. CRAVERI'S MURRELET, *Brachyramphus craveri*. Eggs, unknown. Breeds on the Island of Natridad, Gulf of California.

27. BLACK GUILLEMOT, *Cepphus grylle*. (Type, Plate II.) Eggs, 3 or 4, oval, white, creamy, or greenish, spotted and blotched irregularly with very dark brown.

28. MANDT'S GUILLEMOT, *Cepphus mandtii*. Eggs, indistinguished from No. 27. Breeds throughout Arctic regions of both continents, south to Labrador, and along the Alaskan coast.

29. PIGEON GUILLEMOT, *Cepphus columba*. Eggs, indistinguishable from those of No. 27. Breeds on coast and islands of Pacific, from California and Japan north to Bering's Strait.

30. MURRE, *Uria troile*. (Type, Plate I.) Eggs, 1, decidedly pyriform, varying from pure white, through blue to green, spotted, blotched, and lined with black, brown, and umber; placed on rocky shelves of cliffs; $1.75 + 2.90$ to $2.15 + 3.50$. Breeds on the coasts and islands of Atlantic, from Gulf of St. Lawrence northward, in June.

30a. CALIFORNIA MURRE, *Uria troile californica*. Eggs, indistinguishable from those of No. 30. Breeds on coasts and islands of North Pacific, from California to Pribilof Islands.

30b. RINGED MURRE, *Uria troile ringria*. Eggs, indistinguishable from those of No. 30, and breeding range the same.

31. BRÜNNICH'S MURRE, *Uria lomvia*. Eggs, indistinguishable from those of No. 30, and breeding range the same, excepting that it occurs in the Eastern Arctic Ocean.

31a. PALLAS'S MURRE, *Uria lomvia arra*. Eggs, indistinguishable from those of No. 30. Breeds on coasts and islands of the North Pacific and Western Arctic Oceans.

32. RAZOR-BILLED AUK, *Alea torda*. Eggs, usually 1 or 2, oval, white or bluish, spotted and blotched with very dark brown and umber; $2.10 + 3.10$ to $2.15 + 3.15$; placed in holes of cliffs. Breeds from coast of Maine, northward, in June.

33. GREAT AUK, *Plautus impennis*. Eggs, 1, rather pyriform, varying from white to bluish, spotted and blotched with white, brown and black. Formerly found breeding from Newfoundland, northward, now supposed to be extinct.

34. DOVERIE, *Alle alle*. (Type, Plate III.) Eggs, 1, bluish white; $1.25 + 1.80$ to $1.30 + 1.85$; placed on shelves of cliffs. Breeds in Greenland, and on the coasts and islands of high northern latitudes in Atlantic and Eastern Arctic Oceans, in June.

ORDER II.—LONGIPENNES. Long-winged Swimmers.

Nests, placed on the ground, or on rocky cliffs, and occasionally in trees or bushes.

FAMILY IV.—STERCORARIIDÆ. SKUAS and JÆGERS.

Eggs, dark in color, rather obscurely marked, and placed on the ground.

35. SKUA, *Megalestris skua*. Eggs, 2 or 3, oval, olive brown, rather obscurely blotched with dark brown; $1.95 + 2.75$ to $2.00 + 2.90$. Large size and dark color distinguish this species. Breeds on coasts of North Atlantic, from the Shetland Islands, northward, in June. The bird is only occasionally found on the American coast.

36. POMARINE JÆGER, *Stercorarius pomarinus*. Eggs, 2 or 3, rounded oval, deep olive drab, sparingly spotted with slate color and a few reddish dots and blotches; size, between those of Nos. 35 and 36; $1.70 + 2.25$ to $1.75 + 2.30$. Breeds in the northern portions of the Northern Hemisphere.

37. PARASITIC JÆGER, *Stercorarius parasiticus*. Eggs, 2 or 3, oval, deep yellow or greenish brown, spotted and blotched with varying shades of brown and umber; $1.55 + 2.12$ to $1.60 + 2.35$. Not to be readily distinguished from those of No. 36. Breeds in high latitudes, on the European coast, from the Shetland Islands, northward.

38. LONG-TAILED JÆGER, *Stercorarius longicaudus*. (Type, Plate II.) Eggs, 2 or 3, oval, deep yellowish brown, spotted and blotched with varying shades of dark brown and umber; $1.50 + 2.15$ to $1.56 + 2.25$. The smallest of the Jægers. Breeds in high latitudes of the Northern Hemisphere.

FAMILY V.—LARIDÆ. GULLS and TERNS.

Nests placed on cliffs, trees, or bushes, and often on the ground.

39. IVORY GULL, *Gavia alba*. Eggs, 1, oblong oval, light yellowish olive, marked throughout with small blotches of dark brown, with lighter shell-markings; $1.70 + 2.45$ to $1.75 + 2.50$. Breeds in Arctic seas, on rocky cliffs, in June.

40. KITTIWAKE, *Rissa tridactyla*. Eggs, 2 or 3, oval, yellowish buff, spotted and blotched with rounded marks of brown or lilac; $1.60 + 2.20$ to $1.70 + 2.25$. Nest placed on cliffs, composed of sea-weeds, etc. Breeds from Gulf of St. Lawrence, northward. ♀

40a. PACIFIC KITTIWAKE, *Rissa tridactyla pollicaris*. Eggs, indistinguishable from those of No. 40. Breeds on coasts of North Pacific and Bering's Sea.

41. RED-LEGGED KITTIWAKE, *Rissa bierirostris*. Eggs, indistinguishable from those of No. 40. Breeds on the coasts and islands of Behring's Sea.

42. GLAUCOUS GULL, *Larus glaucus*. Eggs, 3 or 4, oval, varying from bluish white to dark brown, but generally pale, spotted and blotched with rounded markings of brown and lilac, usually of large size; $2.14 + 2.95$ to $2.25 + 3.00$. Breeds in the Arctic regions, late in June.

43. ICELAND GULL, *Larus leucopterus*. Eggs, 3 or 4, oval, deep brownish yellow, spotted and blotched with rather rounded spots of brown and lilac, of varying shade; $1.85 + 2.70$ to $2.60 + 3.76$. Breeds in the Arctic regions.

44. GLAUCOUS-WINGED GULL, *Larus glaucescens*. Eggs, indistinguishable from those of No. 43. Breeds on the coasts of North Pacific.

44a. ALASKAN GLAUCOUS GULL, *Larus barrobianus*. Eggs, unknown. Breeds in Alaska. This species has recently been described by Mr. Robert Ridgway.

45. KUMLIEN'S GULL, *Larus kumlieni*. Eggs, indistinguishable from those of No. 43. Breeds on coasts and islands of Cumberland Gulf.

46. NELSON'S GULL, *Larus nelsoni*. Eggs, unknown, but

probably indistinguishable from those of No. 43. Breeds on coasts of Norton's Sound, Alaska.

47. GREAT BLACK-BACKED GULL, *Larus marinus*. Eggs, 3 or 4, oval, varying from bluish white to deep yellowish brown, spotted and blotched with reddish brown and lilac, of varying shades; $2.20 + 2.95$ to $2.30 + 3.00$. Breeds on both coasts of North Atlantic, in North America, from Bay of Fundy, northward. The eggs are laid in June.

48. SLATY-BACKED GULL, *Larus schistisagus*. Eggs, unknown. Breeds in North Pacific, Herald Island, Arctic Ocean, and Alaska.

49. WESTERN GULL, *Larus occidentalis*. Eggs, 2 or 3, oval, dark olive brown, spotted and blotched with brown and black; $1.80 + 2.70$ to $2.00 + 2.90$. Breeds from Southern California, northward, in May.

50. SIBERIAN GULL, *Larus affinis*. Eggs, unknown. Breeds in Greenland, Northern Asia, and Europe.

51. HERRING GULL, *Larus argentatus*. Eggs, 3 or 4, similar to those of No. 47, but smaller; $1.80 + 2.70$ to $2.05 + 2.90$. Breeds in the northern portion of the old world, and in Cumberland Sound.

51a. AMERICAN HERRING GULL, *Larus argentatus smithsonianus*. Eggs, similar to those of No. 51. Breeds on Atlantic coast of North America, from Maine, northward, early in June. Nests composed of seaweeds and sticks, placed on cliffs, on the ground, or in trees.

52. PALLAS'S GULL, *Larus cachinnans*. Eggs, similar to those of No. 51. Breeds on coasts and islands of North Pacific and Arctic Oceans, on the ground, early in May.

53. CALIFORNIA GULL, *Larus californicus*. Eggs, similar to those of No. 49. Breeds throughout Western North America.

54. RING-BILLED GULL, *Larus delawarensis*. Eggs, 3 or 4, oval, generally dark yellowish brown, rarely bluish, spots of dark brown, often elongated into lines; $1.60 + 2.75$ to $1.75 + 2.89$. Breeds only in the Great Lakes, in Labrador, and north-

ward, in June. Nests of sticks and weeds, placed on cliffs, or on the ground.

55. SHORT-BILLED GULL, *Larus brachyrhynchus*. Eggs, indistinguishable from those of No. 54. Breeds in Arctic America.

56. MEW GULL, *Larus canus*. Eggs, 2 or 3, broadly oval, varying from olive green to yellow and green, spotted and blotched with dark brown and purple; $1.50 + 2.08$ to $1.55 + 2.25$. Extralimital; breeds in Northern Europe and Asia. The bird has been taken in Labrador.

57. HEERMANN'S GULL, *Larus heermanni*. Eggs, oval or oblong oval, varying from pale to dark drab, boldly marked with brown and grey; $1.55 + 2.27$ to $1.65 + 2.35$. Breeds on the Pacific coast of North America, in May.

58. LAUGHING GULL, *Larus atricilla*. Eggs, 3 or 4, oval, varying from bluish white to ashy green, lined, spotted, and blotched with brown, umber, and lilac, the lined style of marking predominating, on the average; $1.52 + 2.00$ to $1.65 + 2.20$. Nests of weeds, placed on the ground. Breeds on the Atlantic coast, from Maine to Brazil, in the northern portion early in July, but further south a little earlier.

59. FRANKLIN'S GULL, *Larus franklinii*. Eggs, 2 or 3, oval, pale greyish green, or light drab or olive, with rather obscure irregular markings of dark brown; $1.45 + 2.00$ to $1.50 + 2.25$. Breeds in the Interior of North America, usually north of the United States.

60. BONAPARTE'S GULL, *Larus philadelphia*. Eggs, 3 or 4, oval, varying from greenish to brown, spotted and blotched with marks of brown, umber, and lilac; $1.13 + 1.33$ to $1.15 + 1.45$. Nests of grass and sea-weeds, placed on cliffs or on the ground. Breeds across Northern North America, rarely along the coast, and usually north of the United States, late in June.

61. ROSS'S GULL, *Rhodostethia rosea*. Eggs, pyriform, dark olive, spotted with darker. Breeds in extreme northern Arctic regions.

62. SABINE'S GULL, *Xema sabinii*. Eggs, 2, oval, deep yellowish or greenish brown, obscurely spotted and blotched

with darker; $1.15 + 1.40$ to $1.10 + 1.50$. Known by the dark color, with obscure markings, and small size.

63. GULL-BILLED TERN, *Gelochelidon nilotica*. Eggs, 3 or 4, short oval, yellowish buff to greenish, with rounded markings of yellowish brown and lilac; $1.30 + 1.75$ to $1.40 + 1.80$. Known from all other Terns by the short oval form.

64. CASPIAN TERN, *Sterna tschegrava*. Eggs, 2 or 3, short oval, greenish white, blotched with brown and lilac; $1.85 + 2.90$ to $1.90 + 2.75$. Distinguished from those of No. 65 by the yellowish white color. Breeds throughout the Northern Hemisphere; in North America, northward, to the Gulf of St. Lawrence, Virginia, Lake Michigan, Texas, Nevada, and California, late in June.

65. ROYAL TERN, *Sterna maxima*. Eggs, 2 or 3, rather pyriform, white, spotted and blotched with rounded markings of brown or lilac, many of which have yellowish edgings; $1.70 + 2.70$ to $1.75 + 2.75$. Eggs distinguished from those of No. 64 by the white ground-color. Breeds from coast of Virginia, southward, throughout tropical America and on the west coast of Africa, in June.

66. ELEGANT TERN, *Sterna elegans*. Eggs, 1 or 2, oval, purplish white, boldly marked with black, burnt sienna, and lilac; $1.45 + 2.20$ to $1.50 + 2.25$. Breeds on coasts of Pacific, from California to Chili.

67. CABOT'S TERN, *Sterna sandwicensis acyflavida*. (Type, Plate II.) Eggs, 1 or 2, oval, white, spotted and blotched with bluish and reddish; $1.25 + 2.00$ to $1.30 + 2.15$. Known by the oval form, size, and white color. Breeds from Florida, southward, throughout tropical America.

68. TRUDEAU'S TERN, *Sterna trudeaui*. Eggs, unknown. Extralimital; breeds in Southern South America. The bird has been accidentally found in New Jersey and Long Island.

69. FORSTER'S TERN, *Sterna forsteri*. Eggs, 3 or 4, oval, varying from nearly pure white to yellowish buff and greenish, spotted and blotched irregularly with brown, umber, and lilac; $1.05 + 1.41$ to $1.25 + 1.80$. These are the palest of the me-

dium-sized Terns' eggs, on the average. Nests placed on the ground, in marshes. Breeds throughout the interior of North America, from Manitoba, southward, and along the coast to Cobb's Island, Virginia.

70. COMMON TERN, *Sterna hirundo*. (Type, Plate I.) Eggs, 3 or 4, indistinguishable from those of No. 69, but darker in ground-color. Breeds throughout the Northern Hemisphere, but in North America confined to the Atlantic coast, where it breeds in colonies, from Florida to the Arctic regions.

71. ARCTIC TERN, *Sterna paradisæa*. Eggs, 3 or 4, indistinguishable from those of No. 70, but average a little darker. Nests placed on the ground, on sand-hills. Breeds throughout the Northern Hemisphere; in North America from Southern Massachusetts to Arctic regions.

72. ROSEATE TERN, *Sterna dougalli*. Eggs, 3 or 4, indistinguishable from those of Nos. 70 and 71, but, from the smaller size of the bird, should be, perhaps, a trifle smaller. The nesting habits of the last three given species serve to identify the eggs, in a measure. No. 70 nests in sand-hills, but seldom constructs much of a nest, a little grass only being used. No. 71 lays on the naked sand, without a nest; No. 72 in the sand-hills, and constructs a more or less elaborate nest of sticks.

73. ALEUTIAN TERN, *Sterna aleutica*. Eggs, oval, brownish or greenish olive, with large markings, often confluent, of dirty brown; $1.10 + 1.75$ to $1.15 + 1.85$. Breeds along the coast of Alaska, from Kadiack to Norton Sound.

74. LEAST TERN, *Sterna antillarum*. (Type, Plate II.) Eggs, 3 or 4 in the North, 2 or 3 in the South, oval, varying from white to buff, blotched and spotted with brown, umber, and lilac, of many shades, with an occasional tinge of lilac; $.75 + 1.00$ to $.90 + 1.30$. Known at once by small size, light color and oval form. Nest placed on the rocks or on sand. Breeds throughout Northern South America, West Indies, along the coast of North America, to California. Eggs laid in the Bahamas and in Florida, early in May; in Virginia, in June; in Massachusetts, not until the first week in July.

75. SOOTY TERN, *Sterna fuliginosa*. (Type, Plate III.) Eggs, 1, oval, white, spotted with rounded markings of reddish brown and lilac; $1.45 + 1.95$ to $1.50 + 2.00$. Eggs placed on the rocks, in a nest of sea-weed. Known by the peculiar tinge of the ground-color. Breeds in tropical and sub-tropical regions of North America, on the Tortugas, and on the Bahamas, early in May.

76. BRIDLED TERN, *Sterna anæthetus*. Eggs, 1, oval, rather whiter than those of No. 75, and more finely spotted, on the average, and smaller in size; $1.35 + 1.85$ to $1.40 + 1.90$. Eggs placed beneath rocks, no nests. Known from No. 75 by the smaller size. Extralimital; breeds in tropical regions and the Bahamas, late in May. The bird occurs casually in Florida, but does not breed there.

77. BLACK TERN, *Hydrochelidon nigra surinamensis*. (Type, Plate II.) Eggs, 3 or 4, varying from greenish to brown, spotted and blotched with irregular markings of brown and umber or lilac; $.90 + 1.25$ to $1.00 + 1.40$. Placed on the ground. Known by the dark color and small size. Breeds from Middle United States, northward.

78. WHITE-WINGED BLACK TERN, *Hydrochelidon leucoptera*. Eggs, indistinguishable from those of No. 77. Extralimital; breeds throughout the Eastern Hemisphere. One specimen of the bird taken in Wisconsin.

79. NODDY TERN, *Anous stolidus*. Eggs, 1, oval, buff, spotted and blotched with paler brown and lilac; $1.42 + 1.80$ to $1.52 + 2.00$. Nests composed of weeds, and placed on rocks or bushes. Breeds in tropical and sub-tropical regions, in May.

80. BLACK SKIMMER, *Rynchops nigra*. (Type, Plate II.) Eggs, 3 or 4, oval or spherical, white or yellowish, boldly and handsomely spotted and blotched irregularly with umber and lilac; $1.35 + 1.65$ to $1.40 + 1.98$. Known at once by the bold marking and white ground-color. Breeds from the coast of Virginia, southward, through the warmer parts of America, in June. Eggs placed on the sand.

ORDER III.—TUBINARES. Tube-nosed Swimmers.

Birds of this order invariably breed on islands, usually remote from the mainland.

Eggs, white, and seldom spotted.

FAMILY VI.—DIOMEDEIDÆ. ALBATROSSES.

Large birds, which seldom, if ever, approach the shore of the mainland, keeping well out at sea.

81. BLACK-FOOTED ALBATROSS, *Diomedea nigripes*. Eggs, unknown. Occurs in North Pacific, on the west coast of North America.

82. SHORT-TAILED ALBATROSS, *Diomedea albatrus*. Eggs, 1, oval, with the ends rounded, dull white; $2.50 + 3.95$ to $2.60 + 4.00$. Breeds on the Pacific islands. Occurs in the Pacific Ocean, northward, to Bering's Strait, including the Western coast of America.

83. YELLOW-NOSED ALBATROSS, *Thalassogeron culminatus*. Eggs, unknown. Breeds in the Indian and South Pacific Oceans. Casual off the coast of Oregon.

84. SOOTY ALBATROSS, *Phœbetria fuliginosa*. Eggs, 1, white, spotted on one end; shell thin and smooth; $3.95 + 2.60$ to $3.95 + 2.64$. Breeds in the Southern Ocean, in November, in caves. Occurs in the oceans of the Southern Hemisphere, northward, to the coast of Oregon.

FAMILY VII.—PROCELLARIIDÆ. FULMARS and SHEARWATERS.

Also birds of the ocean, but rather more often seen near land than the Albatross. Size alone distinguishes their eggs.

85. GIANT FULMAR, *Ossifraga gigantea*. Eggs, 1, elliptical, dirty white, shell rough; $2.66 + 4.25$ to $2.70 + 2.30$. Breeds and occurs in the Indian Ocean. Casual off the coast of Oregon.

86. FULMAR, *Fulmarus glacialis*. Eggs, 1, white, elliptical; $2.00 + 2.75$ to $2.05 + 2.80$. Eggs placed on cliffs. Breeds on the islands in the North Atlantic.

86a. LESSER FULMAR, *Fulmarus glacialis minor*. Eggs, indistinguishable from those of No. 86. Breeds on islands in the North Atlantic, on cliffs.

86b. PACIFIC FULMAR, *Fulmarus glacialis glupischa*. Eggs, indistinguishable from those of No. 86. Occurs in the North Pacific.

86c. RODGER'S FULMAR, *Fulmarus glacialis rodgersii*. Eggs, indistinguishable from those of No. 86. Occurs in Bering's Sea.

87. SLENDER-BILLED FULMAR, *Fulmarus glacialoides*. Eggs, unknown. Occurs in seas of Southern Hemisphere, along the Pacific coast of North America.

88. CORY'S SHEARWATER, *Puffinus borealis*. Eggs, unknown. Breeding-place not known. Occurs off the coast of Massachusetts.

89. GREATER SHEARWATER, *Puffinus major*. Eggs, 1, white; $1.85 + 2.75$ to $2.00 + 5.88$. Occurs off the Atlantic coast of North America, and southward, to Cape Horn and Cape of Good Hope.

90. MANX SHEARWATER, *Puffinus puffinus*. Eggs, pure white; $1.75 + 2.42$ to $1.81 + 2.45$; placed in holes of rocks. Breeds in the Shetland Islands, and, in one instance, in the Bermudas. Occurs in the North Atlantic, and in Greenland.

91. PINK-FOOTED SHEARWATER, *Puffinus creatopus*. Eggs, unknown. Occurs in Pacific Ocean, from off the coast of Lower California to Juan Fernandez Island.

92. AUDUBON'S SHEARWATER, *Puffinus auduboni*. Eggs, 1, rather oval, white, inclined to creamy, shell not especially brittle and rather smooth; $1.40 + 2.00$ to $1.45 + 2.05$. Eggs placed in caves or holes. Breeds in the Bermudas and Bahamas on the coast, the last week of March. Occurs on the coast, from New Jersey southward.

93. BLACK-VENTED SHEARWATER, *Puffinus gavia*. Eggs, unknown. Occurs in the Pacific Ocean, and on the coast of Lower California.

94. SOOTY SHEARWATER, *Puffinus stricklandi*. Eggs, unknown. Occurs in the North Atlantic, southward, on the American coast, to South Carolina.

95. DARK-BODIED SHEARWATER, *Puffinus griseus*. Eggs, 1, white; $2.00 + 2.35$ to $2.10 + 2.40$. Occurs in the South Pacific, northward, to the coast of Lower California.

96. SLENDER-BILLED SHEARWATER, *Puffinus tenuirostris*. Eggs, unknown. Occurs in the North Pacific, on the American coast, from Sitka to Kotzebue Sound.

97. BLACK-TAILED SHEARWATER, *Puffinus cinereus*. Eggs, unknown. Occurs in the South Pacific; accidental off the coast of California.

98. BLACK-CAPPED PETREL, *Æstrelata hasitata*. Eggs, unknown. Occurs in the warmer parts of the Atlantic Ocean; accidental in Florida, Long Island, England, and France.

99. PEALE'S PETREL, *Æstrelata gularis*. Eggs, unknown. Occurs in the Antarctic Ocean.

99a. SCALED PETREL, *Æstrelata scalaris*. Eggs, unknown. A single specimen of this new species was taken in the interior of New York State. Described by Mr. William Brewster, in the "Auk," July, 1886.

100. FISHER'S PETREL, *Æstrelata fisheri*. Eggs, unknown. Occurs on the coast of Alaska.

101. BULWER'S PETREL, *Bulweria bulweri*. Eggs, white, oblong oval; $1.17 + 1.59$ to $1.20 + 1.76$; placed in burrows. Occurs in the Eastern Atlantic; accidental in Greenland.

102. PINTADO PETREL, *Daption capensis*. Eggs, unknown. Occurs in the Southern Hemisphere, northward, to about latitude 25° ; accidental on the coast of California and England.

103. LEAST PETREL, *Halocptena microsoma*. Eggs, unknown. Occurs on the coast of Lower California.

104. STORMY PETREL, *Procellaria pelagica*. Eggs, 1, white, elliptical, sparingly spotted with reddish on the large end; $.80 + 1.13$ to $.85 + 1.15$. Occurs in the Atlantic Ocean; on the American side, on the south Banks of Newfoundland, and along the west coast of Europe and Western Africa.

105. FORK-TAILED PETREL, *Oceanodroma furcata*. Eggs, oval, dirty, chalky white; $1.00 + 1.35$ to $1.03 + 1.40$. Occurs in the North Pacific, southward, on the American coast, to Oregon. Breeds in Alaska and on the Aleutian Islands, in June.

106. LEACHE'S PETREL, *Oceanodroma leucorhoa*. (Type, Plate II.) Eggs, 1, white, often spotted with minute dots of reddish on larger red, often forming a ring; $.90 + 1.25$ to $1.00 + 1.35$. Eggs placed in holes dug by the bird. Breeds from Maine and the Hebrides, northward, on the coast, and on islands of the Pacific.

107. BLACK PETREL, *Oceanodroma melania*. Eggs, unknown. Occurs in South Pacific, northward, to Lower California.

108. ASHY PETREL, *Oceanodroma homochroa*. Eggs, unknown. Occurs on the coast of California.

109. WILSON'S PETREL, *Oceanites oceanicus*. Eggs, unknown. Occurs in the North Atlantic and Southern Oceans, but does not breed on the coast.

110. WHITE-BELLIED PETREL, *Cymodroma grallaria*. Occurs in tropical oceans; accidental on the coast of Florida.

111. WHITE-FACED PETREL, *Pelagodroma marina*. Eggs, unknown. Occurs in the south Atlantic and Southern Oceans; casual off the coast of Massachusetts.

NOTE TO SUBSCRIBERS.

While the first numbers are going through the press, some new species of birds have been added to our fauna, and some eggs hitherto unknown to science have been described. These will be found under their proper numbers in an appendix which will appear with Part 8. The reader will therefore consult this before concluding that the eggs of any species are "unknown" and also for new additions, for here the book will be brought up to the latest date. All measurements are made in inches and hundredths of inches.

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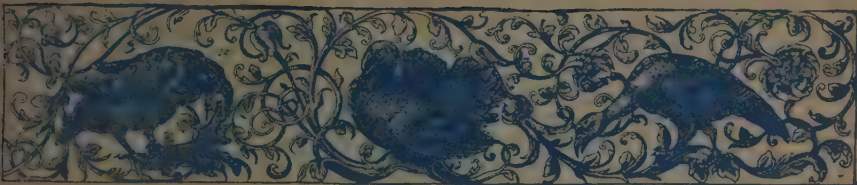
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ORDER IV.—STEGANOPODES. Totipalmate Swimmers.

The eggs of these birds are usually covered with a chalky deposit.

FAMILY VIII.—PHAËTHONTIDÆ. TROPIC BIRDS.

Eggs but little chalky, colored, and deposited in holes of rocks.

112. YELLOW-BILLED TROPIC BIRD, *Phaëthon flavirostris*. (Type, Plate II.) Eggs, 1, oval, chalky, white, and so thickly covered with spots and blotches of reddish chocolate as nearly to obscure the ground-color; there are no other American eggs similar to these, excepting those of No. 113; $1.50 + 2.15$ to $1.60 + 2.25$. Breeds in the Bahamas, Bermudas, and West Indies, in May. The bird occurs rarely in Florida, and occasionally further north.

113. RED-BILLED TROPIC BIRD, *Phaëthon æthereus*. Eggs, 1, elliptical, creamy white, with a purplish tinge, thickly speckled with claret-brown; $1.20 + 2.23$ to $1.55 + 2.30$. Occurs on the coasts of tropical America, northward, on the Pacific, to Lower California; accidental on the Banks of Newfoundland.

FAMILY IX.—SULIDÆ. GANNETS.

Eggs deposited on cliffs; when fresh, bluish green, covered with a chalky deposit. Size alone distinguishes the species. Known by the bluish green shell-color.

114. BLUE-FACED BOODY, *Sula cyanops*. Eggs, 1, white; $1.70 + 2.45$ to $1.75 + 2.55$. Occurs in the West Indies, and northward, to Southern Florida. Breeds in December and January.

115. BOODY, *Sula sula*. Eggs, 1 or 2, oval; $1.50 + 2.15$ to $1.58 + 2.65$. Eggs placed on the ground in a nest of seaweed. Breeds in the Bahamas and on the coasts of tropical

and sub-tropical America. Occurs in Florida; accidental as far northward as Massachusetts. Known by the small size.

116. RED-FOOTED BOOBY, *Sula piscator*. Eggs similar to those of No. 115. Breeds on the coasts and islands of tropical and sub-tropical seas; accidental as far north as Mexico and Florida.

117. GANNET, *Sula bassana*. Eggs, 1 or 2, oval; $1.84 + 3.00$ to $2.10 + 3.30$. Eggs placed on cliffs in a huge nest of seaweed. Breeds from Gulf of St. Lawrence and British Isles, northward, on both sides of the Atlantic. Known by the large size. Breeds in May.

FAMILY X. ANHINGIDÆ. DARTERS.

Eggs bluish, covered, when fresh, with a white chalky deposit.

118. ANHINGA, *Anhinga anhinga*. (Type, Plate III.) Eggs, 3 to 5, oval; $1.15 + 2.15$ to $1.25 + 2.25$. Distinguished by the small size and pale bluish color. Breeds in Florida, and northward, to the mouth of the Ohio river, in April.

FAMILY XI. — PHALACROCORACIDÆ. CORMORANTS.

Eggs oval and chalky, as in the preceding, but of a deeper bluish green color.

119. CORMORANT, *Phalacrocorax carbo*. Eggs, 3 or 4; $1.65 + 2.60$ to $1.75 + 2.60$. Breeds from Gulf of St. Lawrence, northward, late in May.

120. DOUBLE-CRESTED CORMORANT, *Phalacrocorax dilophus*. Eggs, 3 or 4; $1.35 + 2.25$ to $1.50 + 2.50$; placed on cliffs, in a rough nest, made of seaweeds, etc. Breeds from the Bay of Fundy, northward, along the eastern coast, and in the interior to the Great Lakes and Wisconsin.

120a. FLORIDA CORMORANT, *Phalacrocorax dilophus floridanus*. Eggs indistinguishable from those of No. 120. Breeds along the Gulf coast, northward, and in the Mississippi valley,

to Southern Illinois, in April; in the northern section, a little later.

120*b*. WHITE-CRESTED CORMORANT, *Phalacrocorax dilophus cincinatus*. Eggs, indistinguishable from those of No. 120. Breeds on the northwestern coast of North America.

120*c*. FARALLONE CORMORANT, *Phalacrocorax dilophus albociliatus*. Eggs, indistinguishable from those of No. 120. Breeds on the coast of California, southward, to Cape St. Lucas.

121. MEXICAN CORMORANT, *Phalacrocorax mexicanus*. Eggs, indistinguishable from those of No. 120. Breeds in the West Indies, Bahamas (?), South and Central America, to Southern United States, and in the interior in Kansas and Southern Illinois.

122. BRANDT'S CORMORANT, *Phalacrocorax penicillatus*. Eggs, $1.60 + 2.55$ to $1.65 + 2.60$. Nests placed on cliffs. Breeds on the Pacific coast, from Cape St. Lucas to Washington Territory.

123. PELAGIC CORMORANT, *Phalacrocorax pelagicus*. Eggs, $1.45 + 2.25$ to $1.50 + 2.50$. Breeds on the Aleutian and Kurile Islands, and in Kamtschatka.

123*a*. VIOLET-GREEN CORMORANT, *Phalacrocorax pelagicus robustus*. Eggs, indistinguishable from those of No. 123. Breeds on the coast of Alaska, Norton Sound, and Sitka.

123*b*. BAIRD'S CORMORANT, *Phalacrocorax pelagicus resplendens*. Eggs similar to those of No. 123. Breeds on the Pacific coast of North America, from Washington Territory to Cape St. Lucas.

124. RED-FACED CORMORANT, *Phalacrocorax urile*. Eggs, 2; $1.50 + 2.30$ to $1.55 + 2.35$. Breeds on the Prybiloff and Aleutian Islands, and on the coast of Kamtschatka, in June.

FAMILY XII. — PELECANIDÆ. PELICANS.

Eggs, oval, yellowish white, covered with a chalky incrustation, obscuring the green in the ground-color; distinguishable

from those of allied families by the greenish hues and large size.

125. AMERICAN WHITE PELICAN, *Pelecanus erythrorhynchos*. Eggs, 1 or 2; $2.20 + 3.15$ to $2.35 + 3.20$. Breeds from Utah, northward, in the interior.

126. BROWN PELICAN, *Pelecanus fuscus*. Eggs, 1 or 2; $1.80 + 2.80$ to $2.15 + 3.10$; laid in rough nests made of sticks, placed on the ground or in trees. Breeds in tropical and sub-tropical America, the Bahamas, and Florida, in April.

127. CALIFORNIA BROWN PELICAN, *Pelecanus californicus*. Eggs, probably indistinguishable from those of No. 126. Breeds on the Pacific coast, from San Francisco to Cape St. Lucas.

FAMILY XIII. — FREGATIDÆ. MAN-O'-WAR BIRDS.

Eggs not as chalky as the preceding, more elliptical, and the shell is more fragile.

128. MAN-O'-WAR BIRD, *Fregata aquila*. Eggs, 1 or 2; $2.00 + 2.80$ to $2.11 + 2.85$. Nests, of sticks, placed on the ground or in trees. Breeds on tropical and sub-tropical coasts, the Bahamas, Florida Keys, and Texas, from January to May.

ORDER V. — ANSERES. Lamellirostral Swimmers.

Eggs somewhat variable in ground-color, but they are usually plain, few being spotted.

FAMILY XIV. — ANATIDÆ. DUCKS, GEESE, and SWANS.

The shells of the eggs are smooth, the color dull brown, greenish, or white. The nests are made of grass and weeds, often lined with down, and placed on the ground, or in holes of trees.

129. AMERICAN MERGANSER, *Merganser americanus*. Eggs,

6 to 10, oval, pale buff; $1.80 + 2.80$ to $1.70 + 2.75$; known by the form and color. Placed in holes of trees. Breeds from Northern United States northward.

130. RED-BREASTED MERGANSER, *Merganser serrator*. (Type, Plate III.) Eggs, 6 to 12, elongated, oval, smooth, deep greenish brown; $1.70 + 2.50$ to $1.75 + 2.60$; known by the oval form and deep brown color. Breeds throughout the Northern Hemisphere; on the coast of Eastern North America, from the Gulf of St. Lawrence, north, in June. Nests placed on the ground.

131. HOODED MERGANSER, *Lophodytes cucullatus*. Eggs, 6 to 10, very smooth, rather spherical, white; $1.70 + 2.10$ to $1.75 + 2.15$; known by the white polished surface and spherical form. Breeds throughout the wilder portions of North America.

132. MALLARD, *Anas boschas*. Eggs, elliptical, smooth, greenish brown, not dark; $1.40 + 2.25$ to $1.70 + 2.35$; known by the size and brownish color. Breeds from Northern United States northward.

133. BLACK DUCK, *Anas obscura*. Eggs, 6 to 10, elliptical, smooth, rather greenish; $1.40 + 2.25$ to $1.75 + 2.35$. Breeds throughout Eastern North America, between Labrador and Massachusetts, westward, to Utah. Known by the size and greenish color. Nests placed the ground, in marshy places.

134. FLORIDA DUCK, *Anas fulvigula*. Eggs, 6 to 8, oval, smooth, dusky greenish; $1.35 + 2.20$ to $1.70 + 2.30$; known by the small size and greenish color. Nests placed on the ground, in marshy places. Breeds in Florida, in that part of the country which lies between Mosquito Lagoon and Indian River, and on Merritt's Island and the west coast, in April.

135. GADWALL, *Anas strepera*. Eggs, 6 to 10, elliptical, smooth, greenish buff; $1.40 + 2.00$ to $1.50 + 2.05$; placed on the ground. Known by the large size and green color. Breeds throughout the Western United States, in April.

136. WIDGEON, *Anas penelope*. Eggs, 5 to 8, oval, smooth, creamy buff; $1.40 + 2.20$ to $1.50 + 2.30$; known by the size,

form, and pale color. Breeds throughout the northern portion of the Old World, and in the Aleutian Islands. This bird occurs rarely in the Eastern United States.

137. BALDPATE, *Anas americana*. Eggs, 6 to 10, elliptical, smooth, brownish buff; $1.30 + 2.00$ to $1.50 + 2.10$; known from No. 136 by the brown color. Nests placed on the ground. Breeds in the more northern portion of North America, in April and May.

138. EUROPEAN TEAL, *Anas crecca*. Eggs, 6 to 8, elliptical, smooth, pale buff; $1.20 + 1.80$ to $1.25 + 1.95$; known by the small size and pale buff. Breeds in the northern parts of the Old World; casual in Eastern North America.

139. GREEN-WINGED TEAL, *Anas carolinensis*. Eggs, 6 to 10, elliptical, smooth, pale brownish buff; $1.25 + 1.85$ to $1.30 + 1.90$; known by the small size and pale color, not to be readily distinguished from those of No. 138. Nests, well lined with down, placed on the ground, near water. Breeds from Gulf of St. Lawrence northward, early in June.

140. BLUE-WINGED TEAL, *Anas discors*. Eggs, 6 to 10, elliptical, deep brownish buff; $1.30 + 1.90$ to $1.35 + 1.95$. Nests placed on the ground. Breeds from the Northern United States northward.

141. CINNAMON TEAL, *Anas cyanoptera*. (Type, Plate III.) Eggs, 6 to 10, indistinguishable from those of No. 140. Breeds throughout Western America, from Columbia River to Patagonia, in May.

142. SHOVELLER, *Spatula clypeata*. Eggs, 6 to 10, oval, pale ashy green; $1.45 + 2.05$ to $1.50 + 2.10$; known by the small size and green color. Nests placed on the ground. Breeds throughout Western America, from Alaska to Texas.

143. PINTAIL, *Dafila acuta*. Eggs, 6 to 10, elliptical, smooth, greenish brown; $1.50 + 2.10$ to 1.55 to 2.30 ; known by the color and size. Breeds from Northern United States northward, in May.

144. WOOD DUCK, *Aix sponsa*. Eggs, 6 to 10, elliptical,

smooth, pale brown; $1.05 + 1.55$ to 1.15 to 1.65 . Nests placed in holes of trees. Breeds throughout temperate North America, from May to June.

145. RUFOUS CRESTED DUCK, *Nettion rufina*. Eggs, not dissimilar to those of No. 146. Occurs in the Eastern Hemisphere; accidental in the Eastern United States.

146. REDHEAD, *Aythya americana*. Eggs, 6 to 10; elliptical, quite smooth, creamy white; $1.65 + 2.20$ to $1.75 + 2.30$; known by the creamy white color and large size. Nests placed on the ground. Breeds throughout North America, from California and Maine, northward.

147. CANVAS-BACK, *Aythya vallisneria*. Eggs, 6 to 10, elliptical, smooth, ashy green; $1.70 + 2.50$ to $1.75 + 2.55$; known from those of No. 146 by the green color and larger size. Breeds throughout the Northwestern States, northward, to Alaska.

148. AMERICAN SCAUP DUCK, *Aythya marila nearctica*. Eggs, 6 to 10, elliptical, smooth, greenish, $1.70 + 2.36$ to $1.75 + 2.50$. Breeds in the far northern regions of North America, in May and June.

149. LESSER SCAUP DUCK, *Aythya affinis*. Eggs, indistinguishable in form and color from those of No. 148, but smaller; $1.60 + 2.25$ to $1.65 + 2.30$. Breeds throughout North America, north of the United States, in May and June.

150. RING-NECKED DUCK, *Aythya collaris*. Eggs, 6 to 10; indistinguishable from those of No. 149. Breeds in the extreme northern portion of North America.

151. AMERICAN GOLDEN-EYE, *Glaucionetta clangula americana*. Eggs, 6 to 10, elliptical, smooth, greenish; $1.75 + 2.35$ to $1.80 + 2.40$; placed in holes of trees. Known from all but those of No. 152 by the deep greenish color and size. Breeds from Maine northward, in May.

152. BARROW'S GOLDEN-EYE, *Glaucionetta islandica*. Eggs, not to be distinguished from those of No. 151, and breeding habits similar. Breeds from Gulf of St. Lawrence northward;

southward, in the Rocky Mountains, to Colorado, and in Greenland and Iceland.

153. BUFFLE-HEAD, *Charitonetta albeola*. Eggs, 6 to 12, elliptical, smooth, greenish buff; $1.25 + 1.75$ to $1.50 + 2.03$. Known by the buff tinge, and small size. Nests placed in trees. Breeds from Maine northward.

154. OLD SQUAW, *Clangula hyemalis*. Eggs, 6 to 10, elliptical, smooth, greenish; $1.50 + 2.10$ to $1.55 + 2.15$. Nests placed on the ground. Breeds far north, in the Northern Hemisphere.

155. HARLEQUIN DUCK, *Histrionicus histrionicus*. Eggs, 6 to 10, elliptical, smooth, greenish yellow; $1.30 + 2.00$ to $1.50 + 2.10$; known by the yellowish green color and size. Nests placed in holes of trees. Breeds from Newfoundland, the northern Rocky Mountains, and the Sierra Nevada, northward, and in Iceland.

156. LABRADOR DUCK, *Camptolaimus labradorius*. Eggs have never been described. Formerly breeding from Labrador, northward, but probably now extinct.

157. STELLER'S DUCK, *Eniconetta stelleri*. Eggs, no identified specimens in collection. Breeds on Arctic coasts of the Northern Hemisphere.

158. SPECTACLED EIDER, *Arctonetta fisheri*. Eggs, elliptical, pale olive gray; $1.55 + 2.35$ to $1.85 + 2.50$. Breeds along the coast of Alaska, northward, to Point Barrow.

159. EIDER, *Somateria mollissima*. Eggs, 6 to 10, elliptical, smooth, greenish, sometimes blotched with darker; $1.98 + 2.82$ to $2.10 + 3.20$. Known by the large size. Nests placed on the rocks. Breeds throughout the coasts of Northern Europe and North-eastern North America, southward, to Labrador.

160. AMERICAN EIDER, *Somateria dresseri*. Eggs, 6 to 10, indistinguishable from those of No. 159. Breeds from Maine to Labrador, in May.

161. PACIFIC EIDER, *Somateria v—nigra*. Eggs, similar to those of No. 162. Breeds on the coast of the Northern Pacific,

in the interior of the Great Slave Lake District, and in Eastern Siberia.

162. KING EIDER, *Somateria spectabilis*. Eggs, 6 to 10, elliptical, smooth, dirty green; $1.75 + 2.60$ to $1.60 + 2.65$. Breeds in the Arctic region of the Northern Hemisphere.

163. AMERICAN SCOTER, *Oidemia americana*. Eggs, 6 to 10, rather oval, smooth, pale yellow; $1.00 + 2.00$ to $1.65 + 2.05$. Nests on the rocks. Breeds in Labrador and the northern interior, in May.

164. VELVET SCOTER, *Oidemia fusca*. Eggs, 6 to 8, oval, soiled creamy; $1.80 + 2.60$ to $1.85 + 2.65$. Extralimital; Northern Old World; accidental in Greenland and Alaska.

165. WHITE-WINGED SCOTER, *Oidemia deglandi*. Eggs, 6 to 12, indistinguishable from those of No. 164. Breeds in Labrador and the fur countries, in May.

166. SURF SCOTER, *Oidemia perspicillata*. Eggs, 6 to 10, elliptical, greenish buff; $1.60 + 2.25$ to $1.65 + 2.30$. Breeds from Labrador, northward, and on the northern inland waters, in May.

167. RUDDY DUCK, *Erismatura rubida*. Eggs, 5 to 8, elliptical, roughened conspicuously, buff; $1.80 + 2.30$ to $1.85 + 2.55$. Breeds throughout North America, in suitable locations, in April and May.

168. MASKED DUCK, *Nomonyx dominicus*. I have never seen the eggs of this species, nor a description of them. Extralimital; tropical America; accidental in Eastern North America.

169. LESSER SNOW GOOSE, *Chen hyperborea*. Eggs, oval, dirty chalky white; $2.18 + 3.38$ to $2.25 + 3.45$. Breeds in Alaska, late in May.

169a. GREATER SNOW GOOSE, *Chen hyperborea nivalis*. Eggs, 5 to 10, elliptical, yellowish white; $1.90 + 2.80$ to $2.00 + 3.00$. Breeds in the far north, late in May.

170. ROSS'S SNOW GOOSE, *Chen rossii*. Eggs, unknown. Breeds in Arctic America.

171. WHITE-FRONTED GOOSE, *Anser albifrons*. Eggs, 6 to 10, elliptical, yellowish white; $2.05 + 2.95$ to $2.10 + 3.20$. Breeds in the far north, in May.

171a. AMERICAN WHITE-FRONTED GOOSE, *Anser albifrons gambeli*. Eggs, indistinguishable from those of No. 171. Breeds in Arctic North America.

172. CANADA GOOSE, *Branta canadensis*. Eggs, 6 to 10, elliptical, dirty white; $2.35 + 3.40$ to $2.35 + 3.50$. Nests placed on the ground. Breeds in the Northern United States and British Provinces, in May.

172a. HUTCHINS'S GOOSE, *Branta canadensis hutchinsii*. Eggs, similar to those of No. 172, but smaller; $2.00 + 2.95$ to $2.05 + 3.00$. Breeds in the Arctic regions of North America.

172b. WHITE-CHEEKED GOOSE, *Branta canadensis occidentalis*. Eggs, similar to those of No. 172. Breeds in the Northern Pacific coast region.

172c. CACKLING GOOSE, *Branta canadensis minima*. Eggs, unknown. Breeds on the coast of Alaska.

173. BRANT, *Branta bernicla*. Eggs, 6 to 10, elliptical, dirty white; $1.82 + 2.76$ to $1.85 + 2.90$. Nests placed on the ground, in marshes. Breeds in the northern portion of the Northern Hemisphere; in North America, mainly on the Atlantic coast, in June.

174. BLACK BRANT, *Branta nigricans*. Eggs, 6 to 10, elliptical, ivory-white; $1.80 + 2.75$ to $1.85 + 2.92$. Breeds in Arctic America, in June.

175. BARNACLE GOOSE, *Branta leucopsis*. Eggs, 6 to 8, elliptical, yellowish cream; $1.85 + 2.75$ to $1.87 + 2.87$. Extralimital; northern parts of the Old World; birds casual in Eastern North America.

176. EMPEROR GOOSE, *Philate canagica*. Eggs, elliptical, white; $2.90 + 3.10$ to $3.25 + 3.40$. Breeds on the coasts and islands of Alaska, the third week in June.

177. BLACK-BELLIED TREE DUCK, *Dendrocygna autumnalis*.

Eggs, 8 to 10, rounded oval, ivory-white, with a greenish tinge; $1.50 + 2.00$ to $1.60 + 2.30$. Breeds on the southwestern border of the United States, and southward, in the Bahamas and West Indies. Nests in holes of trees, in April.

178. FULVOUS TREE DUCK, *Dendrocygna fulva*. Eggs, 10 to 15, not dissimilar to those of No. 177. Breeds on the southern border of the United States, and southward.

179. WHOOPING SWAN, *Olor cygnus*. Eggs, 6 to 10, oval, dirty white; $4.30 + 2.90$ to $4.35 + 2.95$. Breeds in Northern Europe, Asia, and Greenland.

180. WHISTLING SWAN, *Olor columbianus*. Eggs, 6 to 10, oval, dirty white; $2.50 + 4.00$ to $2.75 + 4.50$. Nests placed on the ground, in marshes. Breeds in the extreme northern portion of North America.

181. TRUMPETER SWAN, *Olor buccinator*. Eggs, 6 to 10, oval, dirty white; $2.50 + 4.30$ to $2.70 + 4.50$. Breeds in the interior of North America, from Iowa and Dakota, northward; west to the Pacific, but rare on the Atlantic.

ORDER VI. — ODONTOGLOSSÆ. Lamellirostral Grallatores.

Eggs, few in number, one or two, rarely three, covered with a chalky incrustation.

Nests, composed of marl or clay, formed into truncated cones, on which the eggs are placed, and are usually situated in shallow salt-water lagoons, or near them.

FAMILY XV. — PHŒNICOPTERIDÆ. FLAMINGOES.

Members of this family inhabit the tropics, where they nest in communities; none of the species occur within our limits during the breeding season.

182. AMERICAN FLAMINGO, *Phœnicopterus ruber*. Eggs, usually 1, occasionally 2, rarely 3, long oval, white, thickly cov-

ered with a chalky incrustation. Breeds on the Bahamas, in the West Indies, and tropical America, early in May. The birds occur in Florida. (Type, Plate IV.)

ORDER VII. — HERODIONES. Herons, Storks,
Ibises, etc.

Birds of this order usually nest in trees or bushes, and, with few exceptions, lay unspotted eggs.

FAMILY XVI. — PLATALEIDÆ. SPOONBILLS.

Nests, composed of sticks, and placed in trees. Eggs, more or less spotted.

183. ROSEATE SPOONBILL, *Ajaja ajaja*. Eggs, 2 or 3, oval, ashy white, spotted and blotched rather sparingly with pale reddish brown; $1.70 + 2.50$ to $1.75 + 2.60$. Breeds in the Gulf States and southward, the Bahamas and West Indies, and in Florida, in February and March.

FAMILY XVII. — IBIDIDÆ. IBISES.

Members of this family place their nests, which are constructed of sticks, in trees or bushes. Eggs, either spotted or plain;

184. WHITE IBIS, *Guara alba*. Eggs, 2 or 3, oval, ashy blue, spotted and blotched with reddish brown; $1.40 + 2.15$ to $1.65 + 2.40$. Breeds in the Gulf States and southward, in May.

185. SCARLET IBIS, *Guara rubra*. Eggs, oblong oval, dull white, slightly tinged with reddish, and nearly covered with spots of dull reddish brown, especially on the larger end; $2.10 + 2.45$ to $1.60 + 2.41$. Extralimital; breeds in the West Indies and Northern South America. Birds accidental in the Gulf States, but there is no recent authentic record of its occurrence.

186. GOSSY IBIS, *Plegadis autumnalis*. Eggs, 2 or 3, oval or elliptical, deep greenish blue, unspotted; $1.37 + 1.85$ to $1.50 + 2.15$. Extralimital; breeds in the northern portions of the Old World. Casual in the West Indies and Eastern North America.

187. WHITE-FACED GLOSSY IBIS, *Plegadis guarana*. Eggs, indistinguishable from those of No. 186. Breeds in Western United States, Texas, Florida (where it is rare), West Indies, Cuba, Central and South America, in April, or earlier in the more southern districts.

FAMILY XVIII. — CICONIIDÆ. STORKS and WOOD IBISES.

Birds of this family place their nests of sticks in trees. The eggs are either plain or spotted.

188. WOOD IBIS, *Tantalus loculator*. Eggs, 1 or 2, elliptical, chalky white, often sparingly spotted with pale reddish brown; $1.70 + 2.70$ to $1.75 + 2.75$. Breeds in Southern United States, from the Ohio Valley, Colorado, Utah, and California, southward, to Buenos Ayres; in Southern United States, in May.

189. JABIRU, *Mycteria americana*. Eggs, 2, rounded oval, uniform olive-green, unspotted; $2.20 + 3.33$ to $2.25 + 3.35$. Extralimital; tropical America, the birds occurring casually in Texas.

FAMILY XIX. — ARDEIDÆ. HERONS, BITTERNS, etc.

Birds of this family usually construct a rude nest of sticks, which is almost always placed in trees or bushes, but occasionally on the ground. Eggs, always unspotted.

190. AMERICAN BITTERN, *Botaurus lentiginosus*. (Type, Plate VI.) Eggs, 3 to 6, elliptical, varying from greenish ash to brown; $1.65 + 2.10$ to $1.80 + 2.25$. Breeds throughout temperate North America, early in June. Nests, composed of weeds, grasses, etc., and placed on the ground, in marshes. The eggs may be recognized by the peculiar brown color.

191. LEAST BITTERN, *Botaurus exilis*. (Type, Plate IV.) Eggs, 3 to 5, elliptical, pale bluish green; $.95 + 1.25$ to $1.00 + 1.30$. Nests, composed of weeds, etc., and placed in reeds, grass, or low bushes. Breeds through temperate North America, south of the British Provinces; rare in the more northern sections. Eggs known by the pale color and small size, but those of the remaining members of the family, where they are to be separated at all, must be distinguished by the size alone.

191a. CORY'S LEAST BITTERN, *Botaurus neoxena*. Eggs, unknown. Only one specimen of the bird known, and that was obtained in 1886, in Western Florida.

192. GREAT WHITE HERON, *Ardea occidentalis*. Eggs, 2 or 3, elliptical, pale bluish green; $1.80 + 2.40$ to $1.85 + 2.45$. Breeds in Southern Florida, and on the Keys.

192a. WURDEMANN'S HERON, *Ardea wurdemannii*. Eggs, 2 or 3, varying from oval to elliptical, pale bluish green; $1.80 + 2.60$ to $1.85 + 2.90$. Breeds in extreme Southern Florida and on the Keys, in March.

193. WARD'S HERON, *Ardea wardii*. Eggs, 2 or 3, varying from elliptical to oval, rather pale greenish blue; $1.66 + 2.50$ to $1.80 + 2.83$. Breeds in Florida, in March.

194. GREAT BLUE HERON, *Ardea herodias*. Eggs, 3 or 4, varying from elliptical to oval, greenish blue; $1.60 + 2.50$ to $1.75 + 2.80$. Breeds throughout North America, in suitable locations, excepting Florida, from March to May, according to latitude.

195. EUROPEAN BLUE HERON, *Ardea cinerea*. Eggs, 3 or 4, oval, bluish green; $1.75 + 2.25$ to $1.80 + 2.30$. Extralimital; most of the Eastern Hemisphere; birds accidental in Southern Greenland.

196. AMERICAN EGRET, *Ardea egretia*. Eggs, 2 to 4, oval or elliptical, rather pale bluish green; $1.40 + 2.20$ to $1.65 + 2.35$. Breeds from New Jersey, Minnesota, and Oregon, south, to Patagonia; in Florida, in April; further north, as late as May.

197. SNOWY HERON, *Ardea candidissima*. Eggs, 2 to 4, varying from oval to elliptical, bluish green; $1.20 + 1.80$ to $1.25 + 1.85$. Breeds from New Jersey and Oregon, southward, to Buenos Ayres; in the United States, from April to June, according to latitude.

198. REDDISH EGRET, *Ardea rufa*. Eggs, 2 to 4, varying from elliptical to oval, bluish green; $1.50 + 2.05$ to $1.55 + 2.25$. Breeds in the Gulf States, Bahamas, Cuba, Jamaica, Mexico, and southward to Guatemala, in April.

199. LOUISIANA HERON, *Ardea tricolor ruficollis*. Eggs, indistinguishable from those of No. 197. Breeds in the Gulf States, Bahamas, West Indies, Mexico, and Central America, in April and May.

200. LITTLE BLUE HERON. Eggs, indistinguishable from those of No. 197. Breeds from New Jersey, Illinois, and Kansas, southward, to Guiana and New Grenada; also in the West Indies; in North America, in April and May.

201. GREEN HERON. (Type, Plate III.) Eggs, 3 to 5, elliptical, greenish blue; $1.00 + 1.45$ to $1.25 + 1.00$. Breeds along both coasts of North America, from Canada and Oregon, southward, to Northern South America, the Bahamas and West Indies.

202. BLACK-CROWNED NIGHT HERON, *Nycticorax nycticorax naevius*. Eggs, 3 to 6, varying from oval to elliptical, bluish green; $1.35 + 1.90$ to $1.55 + 2.15$. Breeds from the British Provinces, southward, to the Falkland Islands, including a part of the West Indies.

203. YELLOW-CROWNED NIGHT HERON, *Nycticorax violacea*. Eggs, 3 to 6, elliptical, yellowish green; $1.80 + 2.25$ to $1.65 + 2.25$. The yellowest of all the Herons' eggs. Breeds from the Carolinas and lower Ohio valley, southward, to Brazil; also on the Bahamas, in April and May.

ORDER VIII.—PALUDICOLÆ. Cranes, Rails, etc.

All the North American members of this family lay spotted eggs. Nests, with one or two exceptions, placed on the ground.

FAMILY XIX.—GRUIDÆ. CRANES.

Members of this family lay very large eggs, exceeding in size those of any other North American birds. Nests, composed of grass, weeds, and other débris, placed in the shallow water of some marsh.

204. WHOOPING CRANE. Eggs, 2, elliptical, yellowish ash, spotted and blotched irregularly and coarsely with reddish brown and umber; $2.60 + 3.90$ to $2.65 + 4.00$. Known from the succeeding species by the large size. Breeds throughout the interior of North America, southward, to Florida and Texas, from March until May, depending upon locality.

205. LITTLE BROWN CRANE, *Grus canadensis*. Eggs, similar to those of No. 204, but smaller; $2.30 + 3.65$ to $2.35 + 3.65$. Breeds in Arctic and sub-Arctic America.

206. SANDHILL CRANE, *Grus mexicana*. (Type, Plate V.) Eggs, indistinguishable in form and color from those of No. 204, but are a little smaller; $2.15 + 3.40$ to $2.25 + 3.65$. Breeds in the southern half of the United States; rare on the Atlantic, excepting in Georgia and Florida; in March and April.

FAMILY XX.—ARAMIDÆ. COURLANS.

Eggs, resembling in general color and markings those of the last family. Nests, composed of sticks, and placed in bushes, near water.

207. LIMPKIN, *Aramus giganteus*. (Type, Plate V.) Eggs, 10 to 15, rather elliptical, ashy yellow, lined, sprinkled, spotted, and blotched with reddish brown and umber; $1.70 + 2.35$ to $1.75 + 2.50$. Known by their resemblance to the Sandhill

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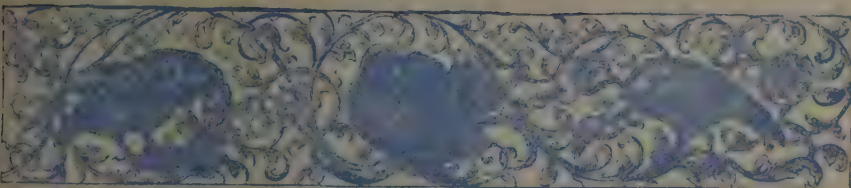
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Cranes in general color and markings. Breeds in Florida, the West Indies, and on the Atlantic coast of Central America, in March.

FAMILY XXI.—RALLIDÆ. RAILS, GALLINULES, and COOTS,

All members of this family place their nests on the ground. in marshy places. They are composed of grass, weeds, etc. Eggs, numerous.

208. KING RAIL, *Rallus elegans*. Eggs, 8 to 10, oval, bluish white or creamy, dotted and spotted rather sparingly with reddish brown and lilac; $1.15 + 1.55$ to $1.25 + 1.77$. Known from the preceding by the paler colors. Breeds in the fresh-water marshes of the Eastern United States, from the Middle States, southward.

209. BELDING'S RAIL, *Rallus beldingi*. Eggs, unknown. Breeds on the Espiritu Islands, Gulf of California.

210. CALIFORNIA CLAPPER RAIL, *Rallus obsoletus*. Eggs, unknown, but probably similar to those of No. 208. Breeds on the salt marshes of the Pacific coast, from Washington Territory to Lower California.

211. CLAPPER RAIL, *Rallus longirostris crepitans*. Eggs, 8 to 10, oval, buffy yellow, dotted and spotted irregularly with reddish brown and lilac; $1.05 + 1.60$ to $1.15 + 1.75$. Known from those of No. 208 by the more buffy tinge. Breeds on the salt marshes of the Atlantic, from New Jersey, southward, early in June.

211a. LOUISIANA CLAPPER RAIL, *Rallus longirostris saturatus*. Eggs, similar to those of No. 211. Breeds in the salt marshes of the Gulf States, from Florida to Louisiana.

212. VIRGINIA RAIL, *Rallus virginianus*. (Type, Plate III.) Eggs, 8 to 10, oval, creamy white, sparingly spotted and dotted with reddish brown and lilac; $.90 + 1.20$ to $.95 + 1.30$. Resemble those of No. 208, but much smaller. Breeds in the fresh marshes throughout North America, from the British Provinces, southward, to Guatemala and Cuba, early in June.

213. SPOTTED CRAKE, *Porzana porzana*. Eggs, 8 to 12, oval, oblong, creamy or buff, spotted with reddish brown; .94 + 1.30 to .98 + 1.35. Extralimital; occurs throughout the Old World; the bird has been taken in Greenland.

214. SORA RAIL, *Porzana carolina*. (Type, Plate III.) Eggs, 6 to 10, oval, brownish buff, dotted and spotted irregularly but sparingly with reddish brown and lilac; .85 + 1.20 to .95 + 1.25. Known from those of No. 212 by the decidedly darker color. Breeds commonly in eastern temperate North America, from Florida, northward, and, rarely, in the West, in the same latitude, in early June.

215. YELLOW RAIL, *Porzana noveboracensis*. Eggs, 6 to 10, oval, deep buff, dotted and spotted irregularly, but very sparingly, with reddish brown and lilac; .80 + 1.05 to .85 + 1.15. Known from those of No. 214 by the smaller size, fewer spottings, and lighter color. Breeds in the northern portion of Eastern North America, from Nova Scotia and Hudson's Bay, westward, to Utah and Nevada, in June.

216. BLACK RAIL, *Porzana jamaicensis*. Eggs, 6 to 8, oval, creamy, faintly dotted and spotted with reddish brown; .75 + 1.00 to .80 + 1.05. Known from all of our other Rails by the small size, sparse markings, and light colors.

216a. FARALLON RAIL, *Porzana jamaicensis coturnichus*. Eggs, unknown. Breeds on the Farallone Islands, California.

217. CORN CRAKE, *Orex crex*. Eggs, 9 to 12, oval, pale buff, spotted and blotched with reddish brown and lilac; 1.50 + 1.73 to 1.55 + 1.75. Extralimital; occurs in Europe; the bird is casual in Greenland, the Bermudas, and Eastern North America.

218. PURPLE GALLINULE, *Ionornis martinica*. Eggs, 6 to 8, rather elliptical, deep creamy, spotted, dotted, and blotched rather sparingly with reddish brown and lilac; 1.15 + 1.70 to 1.20 + 1.75. Known by the deep buff color, small size, and sparse markings. Breeds in the South Atlantic and Gulf States, in May.

219. FLORIDA GALLINULE, *Gallinula galatea*. (Type, Plate IV.) Eggs, 8 to 10, oval, creamy buff, spotted and dotted

with brown and umber; $1.20 + 1.75$ to $1.30 + 1.80$. Known from those of No. 218 by the large size, oval form, and dark markings. Breeds throughout tropical and temperate America, from Canada, southward, to Brazil and Chili, but is not common in the Eastern and Middle States. The eggs are laid in May.

220. EUROPEAN COOT, *Fulica atra*. Eggs, 6 to 10, oval, chalky white, finely and plentifully dotted and spotted with black. Known by the fine black dottings and large size. Extralimital; occurs throughout the northern portions of the Eastern Hemisphere; the bird has been taken in Greenland.

221. AMERICAN COOT, *Fulica americana*. Eggs, 6 to 10, similar in form and markings to those of No. 220, but smaller; $1.15 + 1.80$ to $1.40 + 2.00$. Breeds throughout North America, from Greenland and Alaska, southward, to Florida, but less commonly in the eastern portions. Nests in May. Known by the fine black spottings.

ORDER VIII.—LIMICOLÆ. Shore Birds.

Eggs, usually pyriform in shape, generally boldly and handsomely marked, seldom, if ever, unspotted, few in number, and, almost without exception, placed on the ground, either in some depression of the soil or surface on which they are laid, or a little grass serves for a nest.

FAMILY XXII.—PHALAROPODIDÆ. PHALAROPES.

Eggs, decidedly pyriform, handsomely spotted and blotched, and dark in color. Nests, composed of a little grass.

222. RED PHALAROPE, *Crymophilus fulvicularius*. (Type, Plate IV.) Eggs, 2 to 4, pyriform, varying from greenish to yellowish ash, spotted and blotched irregularly, thickly, and, usually, coarsely, with brown or varying shades; $.85 + 1.15$ to $.90 + 1.30$. Known from those of No. 223 by the superior size.

223. NORTHERN PHALAROPE, *Phalaropus lobatus*. Eggs, 2 to 4, similar to the last in form and color, but smaller; $.75 + 1.02$ to $.80 + 1.30$. Breeds in the Arctic regions of the Northern Hemisphere, in June.

224. WILSON'S PHALAROPE, *Phalaropus tricolor*. Eggs, 2 to 4, similar in form and color to those of No. 222, but slightly larger; $.90 + 1.20$ to $.95 + 1.35$. Breeds in the interior of North America, from Northern Illinois and Utah, northward, to the Saskatchewan region, in May.

FAMILY XXIII. — RECURVIROSTRIDÆ. AVOCETS and STILTS.

Eggs, rather pyriform in shape, dark in color, heavily blotched and spotted.

225. AMERICAN AVOCET, *Recurvirostra americana*. Eggs, 3 or 4, sub-pyriform, dark ashy yellow, spotted and blotched irregularly with rather small rounded or oblong marks of dark brown. Breeds throughout Western North America, from the Saskatchewan and Great Slave Lake region, southward, in May. Eggs distinguished from those of the next species by the superior size, and from those of other Shore Birds by the dark color.

226. BLACK-NECKED STILT, *Himantopus mexicanus*. Eggs, 3 or 4, similar in form and color to those of No. 225, but smaller; $1.15 + 1.52$ to $1.25 + 1.76$. Nests of this and of the preceding species composed of grass, and placed near water, but in dry situations. Breeds from Northern United States southward, west of the Mississippi River; also in Florida, the Bahamas, and West Indies; in the southern sections, during the last of April; later, farther north.

FAMILY XXIV. — SCOLOPACIDÆ. SNIPES, SANDPIPERS, ETC.

Eggs, most decidedly pyriform in shape, generally dark in color.

Nests, composed of grass, moss, or other similar material, and are placed in dry situations except when otherwise stated.

227. EUROPEAN WOODCOCK, *Scolopax rusticolor*. Eggs, 3 or 4, oval, pale yellowish white, blotched and spotted with ashy yellow and yellowish brown or reddish; $1.75 + 1.33$ to $1.35 + 1.80$. Extralimital; breeds in the northern portions of the Old World, but the birds have been taken in Eastern North America.

228. AMERICAN WOODCOCK. Eggs, 3 or 4, rather oval or short pyriform, varying from creamy to buff, spotted and blotched irregularly, but quite thickly and coarsely, with pale reddish brown of varying shades; $1.10 + 1.65$ to $1.20 + 1.70$. Known from all American eggs by the pale colors and oval or short pyriform shape. Breeds in the eastern provinces of North America, westward, to Dakota and Kansas; from the British Provinces, southward, to the Gulf of Mexico and Northern Florida; in the latter named section, in February; farther north, in April.

229. EUROPEAN SNIPE, *Gallinago gallinago*. Eggs, 2 to 4, pyriform, varying from pale greenish brown to yellowish ash, spotted and blotched irregularly and rather faintly with rounded marks of pale reddish brown, the greater portion of the markings being on the larger end; $1.05 + 1.50$ to $1.10 + 1.60$. Extralimital; occurs in the northern parts of the Old World; the bird is frequently found in Greenland, and is accidental in the Bermudas.

230. WILSON'S SNIPE, *Gallinago delicata*. Eggs, 3 or 4, indistinguishable from those of No. 229; in both species the eggs are occasionally marked with lines and scrawls. Known by the decidedly greenish color. Nests placed in marshes. Breeds from Northern United States, northward, in June.

231. DOWITCHER, *Macroramphus griseus*. Eggs, 2 to 4, pyriform, varying from pale greenish brown to yellowish ash, spotted and blotched irregularly, and usually faintly, with light reddish brown and umber; $1.10 + 1.55$ to $1.15 + 1.75$. Known

by the pale colors and pyriform shape. Breeds in the extreme northern portions of North America, in June.

232. LONG-BILLED DOWITCHER, *Macroramphus scolopaceus*. Eggs, 3 or 4, pyriform, decidedly rufous drab, blotched with deep sepia brown; $1.15 + 1.80$ to $1.20 + 1.85$. Known from those of No. 231 by the decidedly rufous ground-color. Breeds in the western portion of Northern North America, in May.

233. *STILT SANDPIPER, *Micropalama himantopus*. Eggs, 3 or 4, oblong pyriform, grayish white, with large round and scattering markings of brown; $1.05 + 1.45$ to $1.10 + 1.50$. Breeds north of the United States, in June.

234. KNOT, *Tringa canutus*. Eggs, evidently unknown. Breeds in high northern latitudes of the Northern Hemisphere.

235. PURPLE SANDPIPER, *Tringa maritima*. Eggs, 3 or 4, decidedly pyriform, varying from yellowish ash to greenish, spotted and blotched irregularly and rather coarsely with brown of varying shades; $.90 + 1.30$ to $1.00 + 1.40$. Known by the coarse markings, greenish shade, and pyriform shape. Breeds in the extreme northern portion of the Northern Hemisphere.

236. ALEUTIAN SANDPIPER, *Tringa cousei*. Eggs, unknown. Occurs on the Aleutian Islands and coast of Alaska, northward, to St. Michael's.

237. PRIBYLOV SANDPIPER, *Tringa ptilocnemis*. Eggs, 2 or 3, decidedly pyriform, clear drab, boldly marked with large blotches of sepia, mingled with other markings; $1.10 + 1.50$ to $1.12 + 1.60$. Breeds in the Pribylov Islands and Alaska, in May.

238. SHARP-TAILED SANDPIPER, *Tringa acuminata*. I can find no description of the eggs of this species. Occurs in Eastern Asia and on the coast of Alaska.

239. PECTORAL SANDPIPER, *Tringa maculata*. Eggs, unknown. Breeds in the Arctic regions of North America.

240. WHITE-RUMPED SANDPIPER, *Tringa fuscicollis*. Eggs, 3 or 4, pyriform, rufous drab, boldly marked with very dark

sepia brown; $.95 + 1.35$ to $1.00 + 1.40$. Breeds in the far north of Eastern North America.

241. BAIRD'S SANDPIPER, *Tringa bairdi*. Eggs, 2 to 4, pyriform, varying from ashy yellow to buff, spotted and blotched with brown of two or three shades; $.90 + 1.28$ to $.95 + 1.35$. Breeds in the interior of Northern North America, in May.

242. LEAST SANDPIPER, *Tringa minutilla*. Eggs, 3 or 4, pyriform, varying from creamy to buff, spotted and blotched irregularly and quite thickly with brown and umber of varying shades; $.70 + .90$ to $.75 + 1.00$. Known by the small size and form. Breeds in North America, north of the United States.

243. DUNLIN, *Tringa alpina*. Eggs, 2 to 4, pyriform, varying from greenish to yellowish, blotched and dotted irregularly and thickly with rounded marks of reddish brown of several shades; $.95 + 1.30$ to $1.00 + 1.35$. Known by the greenish color, size, and coarse markings. Extralimital; occurs in the northern parts of the Old World; accidental in North America.

243a. RED-BACKED SANDPIPER, *Tringa alpina pacifica*. Eggs, indistinguishable from those of No. 243. Breeds in the extreme northern portion of North America.

244. CURLEW SANDPIPER, *Tringa ferruginea*. Eggs, unknown. Extralimital; occurs in the Old World; accidental in North America.

244a. DAMACEN SANDPIPER, *Tringa damacensis*. Eggs, unknown. This species only claims a place in our fauna through a specimen having been taken in Alaska, on Otter Island, Bering's Sea.

245. SPOON-BILL SANDPIPER, *Eryporhynchus pygmaeus*. Eggs, unknown. Extralimital; occurs in Arctic Asia; accidental on the coast of Alaska.

246. SEMIPALMATED SANDPIPER, *Ereunetes pusillus*. Eggs, 2 to 4, decidedly pyriform, varying from greenish to yellowish ash, spotted, dotted, and blotched irregularly and thickly with

brown of varying shades; $.80 + 1.20$ to $.85 + 1.25$. Known from those of No. 242 by the large size and greenish color. Breeds in Eastern North America, north of the United States, late in May.

247. WESTERN SANDPIPER, *Ereunetes occidentalis*. Eggs, 3 or 4, pyriform, light grayish buff, thickly spotted with reddish sepia; $.80 + 1.20$ to $.90 + 1.25$. Breeds in Western North America, in the far north, in May.

248. SANDERLING, *Calidris arenaria*. Eggs, 2 to 4, pyriform, varying from dark ashy yellow to greenish brown, spotted and blotched with brown of varying shades; $.40 + 1.35$ to $.45 + 1.45$. Known by the size and general dark color. Breeds in Arctic and sub-Arctic regions of the globe.

249. MARBLED GODWIT, *Limosa fedoa*. Eggs, 2 to 4, long oval, varying from creamy to pale buff, spotted and blotched rather sparingly with yellowish brown of varying shades, with the usual paler shell-markings; $1.45 + 2.20$ to $1.50 + 2.25$. Known by the peculiar form, size, and pale color. Breeds in the interior of North America, from Utah, northward, in May.

250. PACIFIC GODWIT, *Limosa lapponica baueri*. Eggs, 2 or 3, oblong oval, varying from pale drab to greenish, spotted and blotched with umber; $1.43 + 2.25$ to $1.45 + 2.25$. Breeds on the shores and islands of the Pacific; in North America only in Alaska, in May.

251. HUDSONIAN GODWIT, *Limosa hæmastica*. Eggs, 3 or 4, pyriform, very dark greenish brown, somewhat obscurely blotched with dark brown; $1.35 + 2.15$ to $1.40 + 2.20$. Known by the large size, form, and dark color. Breeds in the extreme north of Eastern North America, in May.

252. BLACK-TAILED GODWIT, *Limosa limosa*. Eggs, quite similar to those of No. 251. Extralimital; breeds in the northern parts of the Old World; bird accidental in Greenland.

253. GREEN-SHANK, *Totanus nebularis*. Eggs, 3 or 4, pyriform, pale yellowish green, spotted with dark brown and light purplish drab; $1.38 + 2.25$ to $1.42 + 2.10$. Extralimital; occurs in the Eastern Hemisphere; bird accidental in Florida.

254. GREATER YELLOW-LEGS, *Totanus melanoleucus*. Eggs, 3 or 4, pyriform, pale greenish yellow, spotted and blotched with umber and pale purplish gray; $1.56 + 2.25$ to $1.58 + 2.30$. Breeds in North Temperate and sub-Arctic North America, in May.

255. YELLOW-LEGS, *Totanus flavipes*. Eggs, 2 or 4, pyriform, varying from creamy to ashy buff, spotted and blotched irregularly with umber brown of varying shades; $1.15 + 1.60$ to $1.20 + 1.80$. Known by the size and light ground-color. Breeds in North Temperate and sub-Arctic North America.

256. SOLITARY SANDPIPER, *Totanus solitarius*. Eggs, 2 to 4, pyriform, varying from creamy to pale buff, spotted and blotched, usually quite coarsely, with brown of varying shades, but generally dark; $.95 + 1.35$ to $1.00 + 1.40$. The eggs described are from Utah, and were placed on the ground. Breeds in Northern North America, from Utah and Northern New England, northward.

257. GREEN SANDPIPER, *Totanus ochropus*. Eggs, 3 or 4, pear-shaped, grayish green, sparingly spotted and blotched with pale purplish gray and dark brown; $1.08 + 1.50$ to $1.12 + 1.55$. Eggs placed in trees, in the deserted nests of large birds. Breeds in the northern portions of the Old World; bird accidental in Nova Scotia.

258. WILLET, *Symphemia semipalmata*. Eggs, 3 or 4, rather blunt pyriform, varying from creamy to greenish, usually of the latter shade, spotted and blotched irregularly and quite thickly with rounded marks of reddish brown umber and lilac; $1.90 + 2.18$ to $1.45 + 1.58$. Breeds from Southern New England and Western Canada to the Gulf of Mexico, east of the Mississippi River; also in the Bahamas.

258a. WESTERN WILLET, *Symphemia semipalmata inornata*. Eggs, indistinguishable from those of No. 258. Breeds throughout the Central Plains, in May. This sub-species has been described by Mr. William Brewster, in the "Auk," April, 1887.

259. WANDERING TATLER, *Heteractitis incanous*. Eggs, unknown. Breeds on the eastern islands and shores of the Pacific Ocean. The bird is a frequent migrant on the coast of Alaska.

260. RUFF, *Pavoncella pugnax*. Eggs, 2 to 4, oblong, pyriform, olivaceous, spotted and blotched with umber and reddish brown; $1.09 + 1.60$ to $1.12 + 1.60$. Extralimital; occurs in the northern parts of the Old World. Accidental in Eastern North America.

261. BARTRAMIAN SANDPIPER, *Bartramia longicauda*. Eggs, 2 to 4, rather short pyriform, pale buff, spotted and dotted sparingly and irregularly, usually more thickly on the larger end, with yellowish brown of varying shades; $1.25 + 1.75$ to $1.35 + 1.90$. Known by the short pyriform shape, pale colors, and rather fine spottings. Breeds throughout Eastern North America, from the Carolinas to Nova Scotia, and also in Alaska, in May.

262. BUFF-BREASTED SANDPIPER, *Tryngites subruficollis*. Eggs, 2 to 4, pyriform, varying from ashy yellow to greenish brown, spotted and blotched irregularly with umber and brown of varying shades; $1.02 + 1.40$ to $1.10 + 1.50$. Known by the size, dark colors, and heavy, abundant markings. Breeds in the interior of British America, and in the Yucon district, northward to the Arctic coast, in May.

263. SPOTTED SANDPIPER, *Actis macularia*. (Type, Plate VI.) Eggs, 3 or 4, decidedly pyriform, varying from creamy to buff, spotted, blotched, and dotted with rounded marks of reddish brown and lilac; $.90 + 1.20$ to $.95 + 1.40$. Known by the size and rounded markings. Breeds throughout temperate North America, in May.

264. LONG-BILLED CURLEW, *Numenius longirostris*. Eggs, 2 to 4, rather oval, varying from ashy yellow to greenish, spotted, blotched, and dotted irregularly with brown, umber, and lilac of varying shades; $1.80 + 2.40$ to $1.90 + 2.88$. The largest of the Shore Birds' eggs. Breeds in the South Atlantic States, excepting, perhaps, Florida, and through the interior of temperate North America.

265. HUDSONIAN CURLEW, *Numenius hudsonicus*. Eggs, 3 or 4, pyriform, varying from ashy yellow to greenish, spotted and blotched irregularly and thickly with brown and umber of varying shades; $1.50 + 2.20$ to $1.60 + 2.30$. Breeds in the far north.

266. ESKIMO CURLEW, *Numenius borealis*. Eggs, 2 to 4, rather oval, varying from ashy to greenish brown, spotted and blotched coarsely with brown and umber; $1.30 + 1.90$ to $1.85 + 2.00$. Known by the oval form and coarse markings. Breeds in the eastern Arctic regions of North America.

267. WHIMBREL, *Numenius phaeopus*. Eggs, 2 to 4, pyriform, varying from light to dark greenish brown, spotted and clouded with dark umber; $1.51 + 2.25$ to $1.60 + 2.57$. Extralimital; breeds in the northern parts of the Old World, but the bird occurs in Greenland.

268. BRISTLE-THIGHED CURLEW, *Numenius tahitiensis*. Eggs, unknown. Extralimital; breeds in the islands of the Pacific. The bird is occasional on the coast of Alaska.

269. LAPWING, *Vanellus vanellus*. Eggs, 3 or 4, rather pyriform, deep yellowish ash, spotted and blotched with dark brown; $1.31 + 1.80$ to $1.36 + 1.85$. Extralimital; breeds in the northern parts of the Eastern Hemisphere. The bird is occasional in Greenland and Alaska.

270. BLACK-BELLIED PLOVER, *Charadrius squatrola*. Eggs, 3 or 4, rather pyriform, brownish drab, spotted and blotched boldly with dark brown, the spots often becoming so large as to be confluent; $1.40 + 2.12$ to $1.45 + 2.35$. Known by the size and large confluent markings. Breeds in the Arctic regions of the Northern Hemisphere.

271. GOLDEN PLOVER, *Charadrius apricarius*. Eggs, 2 to 4, pyriform, deep buff, blotched and spotted with brown of varying shades, with the markings large and confluent; $1.25 + 1.80$ to $1.45 + 2.10$. Extralimital; breeds in Europe. The bird occurs in Greenland.

272. AMERICAN GOLDEN PLOVER, *Charadrius dominicus*. Eggs, 3 or 4, pyriform, ashy yellow, spotted, blotched, and

dotted boldly with deep brown, with the larger markings often confluent, especially towards the larger end; $1.25 + 1.60$ to $1.30 + 1.65$. Known by the ashy color and large confluent blotches. Breeds in Arctic America, in June.

272a. PACIFIC GOLDEN PLOVER, *Charadrius dominicus fulvus*. Eggs, 3 or 4, pyriform, yellowish gray, blotched and spotted with deep brownish sepia; $1.10 + 1.50$ to $1.15 + 1.55$. Breeds in Asia and on islands in the Pacific; in North America, on the Pribylov Islands and coast of Alaska, in June.

273. KILLDEER, *Ægialitis vocifera*. Eggs, 3 or 4, pyriform, creamy, spotted and lined with dark brown and umber, but spottings, not lines, predominate; $1.00 + 1.35$ to $1.05 + 1.50$. Known by the creamy color and preponderance of spots. Breeds throughout temperate North America, from the Carolinas, northward; rare in New England. Eggs laid in May.

274. SEMIPALMATED PLOVER, *Ægialitis semipalmata*. Eggs, 3 or 4, pyriform, spotted irregularly and plentifully with brown of varying shades; $.90 + 1.35$ to $.95 + 1.40$. Known by the abundance of spots and absence of lines. Breeds in Arctic and sub-Arctic America, in June.

275. RING PLOVER, *Ægialitis hiaticula*. Eggs, 3 or 4, indistinguishable from those of No. 274. Breeds in the northern portions of the Old World, and in America on the west shore of Cumberland Gulf.

276. LITTLE RING PLOVER, *Ægialitis dubia*. Eggs, 3 or 4, rather pyriform, varying from buff to creamy, spotted and dotted, not coarsely, with dark brown and black, with the usual paler shell-markings; $.90 + 1.30$ to $.95 + 1.35$. Known by the creamy color and medium coarse markings. Extralimital; breeds in the Eastern Hemisphere. Birds accidental on the coast of California and Alaska.

277. PIPING PLOVER, *Ægialitis meloda*. (Type, Plate VI.) Eggs, 4 or 5, pyriform, pale yellowish ash, finely and thickly dotted with black, yellowish, and lilac; $.90 + 1.10$ to $1.00 + 1.20$. Known by the pale color and fine dottings. Breeds from

the coast of Virginia, northward, to the Magdalen Islands, Gulf of St. Lawrence, in early June.

277a. BELTED PIPING PLOVER, *Ægialitis melodia circumcincta*. Eggs, indistinguishable from those of No. 277. Breeds in the Missouri River region, and perhaps occasionally on the Atlantic coast.

278. SNOWY PLOVER, *Ægialitis nivosa*. Eggs, 3 or 4, light clay-color, thickly sprinkled with blackish brown in lines and scratches; resemble those of No. 277, but differ in having more decided lines. Breeds on the western coast of North America, from April to July.

279. MONGOLIAN PLOVER, *Ægialitis mongola*. Eggs, probably unknown. Extralimital; breeds in Northern Asia. The bird is accidental in Alaska.

280. WILSON'S PLOVER, *Ægialitis wilsonia*. (Type, Plate VI.) Eggs, 2 or 3, similar to those of No. 273, but lined throughout, and not spotted; $1.00 + 1.35$ to $1.05 + 1.40$. Known by the numerous lines and absence of rounded spots. Breeds on both coasts of America, from Lower California and Long Island to Brazil and Peru, including the West Indies and Bahamas.

281. MOUNTAIN PLOVER, *Ægialitis montana*. Eggs, 2 to 4, decidedly pyriform, greenish brown, finely and plentifully dotted with very dark brown and black; $1.10 + 1.40$ to $1.12 + 1.50$. Known by the dark color and fine dottings. Breeds in temperate North America, westward, in May.

FAMILY VI. — APHRIZIDÆ. SURF BIRDS and TURNSTONES.

Eggs not so decidedly pyriform as in the last family, and darker in color, as a rule.

282. SURF BIRD, *Aphriza virgata*. Eggs, unknown to me. Occurs on the Pacific coast of America, from Alaska to Chili and the Sandwich Islands.

283. TURNSTONE, *Arenaria interpres*. Eggs, 2 to 4, somewhat pyriform, greenish ash, spotted and blotched irregularly

with yellowish brown and scattering dots of umber; $1.17 + 1.57$ to $1.20 + 1.65$. Known by the size and dark color. Breeds in Arctic regions around the globe, in June.

284. BLACK TURNSTONE, *Arenaria melanocephala*. Eggs, 3 or 4, oblong pyriform, olivaceous drab, profusely marbled with suffused spottings and dottings; $1.15 + 1.58$ to $1.19 + 1.85$. Breeds in Alaska.

FAMILY XI. — HÆMATOPODIDÆ. OYSTER-CATCHERS.

Eggs, rather oval, pale in color, and boldly spotted, placed on the sand by the sea-shore, but little or no nest being constructed.

285. OYSTER-CATCHER, *Hæmatopus ostralegus*. Eggs, 3 or 4, rather oval, yellowish ashy, spotted and blotched with ashy gray and dark brown; $1.50 + 2.17$ to $1.55 + 2.20$. Extralimital; occurs on the sea-coast of the Eastern Hemisphere. The bird is occasional in Greenland.

286. AMERICAN OYSTER-CATCHER. *Hæmatopus palliatus*. Eggs, 2 to 4, rather oval, creamy or white, spotted and blotched irregularly with brown of varying shades; $1.50 + 2.15$ to $1.55 + 2.25$. Known from those of No. 285 by lighter color. Breeds on the sea-coasts of temperate and tropical America, from New Jersey and Lower California to Patagonia; also on the Bahamas.

287. BLACK OYSTER-CATCHER, *Hæmatopus bachmani*. Eggs, 3 or 4, indistinguishable in form and color from those of No. 286; $1.52 + 2.18$ to $1.59 + 2.29$. Breeds on the Pacific coast of North America, from California to Alaska.

FAMILY XII. — JACANIDÆ. JACANAS.

Members of this family mainly inhabit the tropics, and their breeding habits appear to be but little known.

288. MEXICAN JACANA, *Jacana gymnostoma*. Eggs, 4, rounded oval, light drab, marbled with a network of lines and spots of black and dark brown, about the size of those of the

Virginia Rail. Breeds in Mexico, Central America, and Cuba, thus extralimital; but the bird is said to occur in the lower Rio Grande Valley, Texas.

ORDER III.—GALLINÆ. Gallinaceous Birds.

Birds of this order usually lay a large number of eggs, which are placed on the ground in a rude nest of leaves, etc., they are variously colored and sometimes spotted.

FAMILY V.—TETRAONIDÆ. GROUSE, PARTRIDGES, ETC.

Eggs, varying in form from pyriform to oval; they are white, buff, or creamy, plain or spotted.

289. BOB-WHITE, *Colinus virginianus*. (Type, Plate VI.) Eggs, 8 to 20, decidedly short pyriform, white and unspotted, .95 + 1.30 to 1.00 + 1.35. Breeds in Eastern United States, from Southern Maine to the South Atlantic and Gulf States, westward to Dakota, Eastern Kansas, and Eastern Texas.

289a. FLORIDA BOB-WHITE, *Colinus virginianus floridanus*. Eggs, 8 to 15, indistinguishable from those of No. 289, excepting in being a little smaller. Breeds in Florida.

289b. TEXAN BOB-WHITE, *Colinus virginianus texanus*. Eggs, 8 to 15, indistinguishable from those of No. 289a. Breeds in Southern and Western Texas, northward to Western Kansas.

290. GRAYSON'S BOB-WHITE, *Colinus graysoni*. Eggs, unknown. Breeds in Mexico, northward into Southern Arizona.

291. MASKED BOB-WHITE, *Colinus ridgwayi*. Eggs, unknown. Breeds on the Mexican border of Arizona and southward.

292. MOUNTAIN PARTRIDGE, *Oreortyx pictus*. Eggs, 8 to 20, rather oval, rich cream-color, unspotted; 1.10 + 1.46 to

1.12 + 1.48. Breeds in Washington Territory, Oregon, and northern coast region of California, in May.

292a. PLUMED PARTRIDGE, *Oreortyx pictus plumiferus*. Eggs, indistinguishable from those of No. 292. Breeds in the Sierra Nevada and southern coast ranges of California, to Cape St. Lucas.

293. SCALED PARTRIDGE, *Callipepla squamata*. Eggs, 6 to 8, short pyriform, creamy, sprinkled and blotched rather more thickly and coarsely on the larger end, with very pale yellowish drab; 1.00 + 1.25 to 1.05 + 1.35. Breeds on the tablelands of Mexico, into Western Texas, New Mexico, and Arizona, in May and June.

293a. CHESTNUT-BELLIED SCALED PARTRIDGE, *Callipepla squamata castanogastris*. Eggs, probably indistinguishable from those of No. 293, but are said to be oval in form. Breeds in Eastern Mexico and lower Rio Grande Valley in Texas, in May.

294. CALIFORNIA PARTRIDGE, *Callipepla californica*. (Type, Plate VI.) Eggs, 8 to 20, short pyriform, creamy, blotched, sprinkled, and spotted, coarsely or finely, varying greatly individually, with rather pale reddish brown; .90 + 1.20 to 1.00 + 1.30. Breeds in the coast region of California and Oregon, in May and June.

294a. VALLEY PARTRIDGE, *Callipepla californica vallicola*. Eggs, indistinguishable from those of No. 294. Breeds in the interior valleys and foot-hills of the Pacific province, southward to Cape St. Lucas, in May and June.

295. GAMBELL'S PARTRIDGE, *Callipepla gambeli*. Eggs, 6 to 15, indistinguishable from those of No. 294. Breeds in Western Texas, New Mexico, Southern Utah, Arizona, lower Colorado Valley, and southward into Western Mexico.

296. MASSENA PARTRIDGE, *Cyrtonyx montezumæ*. Eggs, unknown. Breeds in Northwestern Texas, New Mexico, Arizona, and Northwestern Mexico.

297. DUSKY GROUSE, *Dendragapus obscurus*. Eggs, 6 to 10, oval, pale cream-color, finely spotted with reddish brown; 1.40

NOTE TO SUBSCRIBERS.

While the first numbers are going through the press, some new species of birds have been added to our fauna, and some eggs, hitherto unknown to science, have been described. These will be found under **their proper numbers** in an appendix which will appear with Part 8. The reader will therefore consult this before concluding that the eggs of any species are "unknown" and also for new additions, for here the book will be brought up to the latest date. All measurements are made in inches and hundredths of inches.

C. J. MAYNARD.

+ 1.90 to 1.45 + 1.95. Breeds in the Rocky Mountains, from Central Montana to New Mexico and Arizona.

297a. SOOTY GROUSE, *Dendragapus obscurus fuliginosus*. Eggs, similar to those of No. 297. Breeds in the northwest coast mountains, from California to Sitka.

297b. RICHARDSON'S GROUSE, *Dendragapus obscurus richardsonii*. Eggs, similar to those of No. 297 in form and color, but are smaller; 1.35 + 1.72 to 1.36 + 1.75. Breeds in the Rocky Mountains, from Central Montana, northward, into British America.

298. CANADA GROUSE, *Dendragapus canadensis*. Eggs, 8 to 10, oblong oval, deep buff, spotted and sprinkled with brown of varying shades; 1.20 + 1.68 to 1.22 + 1.75. Breeds in British America east of the Rocky Mountains, from Alaska, southward, to Northern Michigan, Northern New York, and Northern New England, in May.

299. FRANKLIN'S GROUSE, *Dendragapus franklinii*. Eggs, indistinguishable from those of No. 298. Breeds in the Northern Rocky Mountains, and to the Pacific coast, but generally north of the United States.

300. RUFFED GROUSE, *Bonasa umbellus*. (Type, Plate VI.) Eggs, 8 to 12, rather oval, creamy or buff, usually plain, but occasionally spotted with reddish; 1.08 + 1.45 to 1.20 + 1.65. Breeds throughout the Eastern United States, southward to North Carolina, Georgia, Mississippi, and Arkansas.

300a. CANADIAN RUFFED GROUSE, *Bonasa umbellus togata*. Eggs, not to be distinguished from those of No. 300. Breeds in the densely timbered portion of Northern Maine and the British Provinces, westward to Eastern Oregon and Washington Territory.

300b. GRAY RUFFED GROUSE, *Bonasa umbellus umbelloides*. Eggs, indistinguishable from those of No. 300. Breeds in the Rocky Mountain region of the United States and British America, northward to Alaska.

300c. OREGON RUFFED GROUSE, *Bonasa umbellus sabini*. Eggs, indistinguishable from those of No. 300. Breeds in the

Rocky Mountain region of the United States, northward to Alaska.

301. WILLOW PTARMIGAN, *Lagopus lagopus*. (Type, Plate VI.) Eggs, 8 to 15, oval, reddish buff, spotted and mottled, usually quite thickly, with large confluent blotches of purplish brown; $1.15 + 1.80$ to $1.20 + 1.85$. Breeds in Arctic North America, in June.

301a. ALLEN'S PTARMIGAN, *Lagopus lagopus allani*. Eggs, indistinguishable from those of No. 301. Breeds in Newfoundland.

302. ROCK PTARMIGAN, *Lagopus rupestris*. Eggs, indistinguishable from those of No. 301, excepting that they are perhaps a little smaller; $1.10 + 1.55$ to $1.12 + 1.65$. Breeds in Arctic North America.

302a. REINHARDT'S PTARMIGAN, *Lagopus rupestris reinhardti*. Eggs, indistinguishable from those of No. 302. Breeds in Greenland and on the western shores of Cumberland Gulf.

302b. TURNER'S PTARMIGAN, *Lagopus rupestris atkensis*. Eggs, unknown, but probably indistinguishable from those of No. 302. Breeds on Atkha Island, Aleutian group.

303. WELCH'S PTARMIGAN, *Lagopus welchi*. Eggs are, I think, undescribed, but probably resemble those of No. 302. Breeds in Newfoundland.

304. WHITE-TAILED PTARMIGAN, *Lagopus leucurus*. Eggs, 8 to 10, oval, or oblong oval, yellowish cream, marked with small rounded spots of deep chestnut, quite uniformly distributed over the entire surface; $1.20 + 1.80$ to $1.22 + 1.85$. Breeds on the alpine summits of the mountains of Western North America, from New Mexico, northward, into British America.

305. PRAIRIE HEN, *Tympanuchus americanus*. Eggs, 8 to 15, oval, varying from dirty white to greenish yellow, unspotted, or often finely dotted with reddish yellow; $1.20 + 1.60$ to $1.30 + 1.75$. Breeds on the prairies of the Mississippi Valley, southward to Louisiana, eastward to Kentucky and Indiana, in May.

306. HEATH HEN, *Tympanuchus cupido*. Eggs, 6 to 10, oval, yellowish green, of a lighter shade than those of No. 305, and unspotted; $1.25 + 1.72$ to $1.27 + 1.75$. Breeds on the island of Martha's Vineyard, Mass., in May.

307. LESSER PRAIRIE HEN, *Tympanuchus pallidicinctus*. Eggs, indistinguishable from those of No. 305 in form and color, but are a little smaller. Breeds on the eastern edges of the Great Plains, from Texas northward.

308. SHARP-TAILED GROUSE, *Pediocetes phasianellus*. Eggs, 10 to 14, oval, varying from ashy yellow to reddish brown, often plain, but frequently sprinkled with dark brown; $1.25 + 1.75$ to $1.28 + 1.78$. Breeds in British America, from the northern shores of Lake Superior and British Columbia to Hudson's Bay Territory and Alaska, in June.

308a. COLUMBIAN SHARP-TAILED GROUSE, *Pediocetes phasianellus columbianus*. Eggs, similar to those of No. 308, but are paler and larger; $1.30 + 1.80$ to $1.32 + 1.85$. Breeds on the plains of Northwestern United States, in May.

308b. PRAIRIE SHARP-TAILED GROUSE, *Pediocetes phasianellus campestris*. Eggs, similar to those of No. 308, but perhaps a little smaller on the average; $1.23 + 1.66$. Breeds on the plains and prairies of the United States, east of the Rocky Mountains, south to New Mexico, in May.

309. SAGE GROUSE, *Centrocercus urophasianus*. Eggs, 6 to 17, rather pointed, oval, varying from greenish to yellowish drab, thickly marked with rounded spots of reddish brown of varying shades; $1.50 + 2.20$ to $1.45 + 2.15$. Breeds on the sage plains of the Rocky Mountain plateau and westward, from Dakota, Colorado, and New Mexico, to Nevada, Eastern California, Oregon, and Washington Territory, in April.

FAMILY XXX.—PHASIANIDÆ. PHEASANTS, TURKEYS, ETC.

Members of this family deposit their eggs, which are numerous, on the ground in retired situations, in coarse nests made of leaves or other similar material.

310. WILD TURKEY, *Meleagris gallopavo*. (Type, Plate VIII.) Eggs, 10 to 20, short, oval, varying from creamy to buff, spotted and dotted, usually quite thickly, with reddish brown; $1.85 + 2.45$ to $2.00 + 2.50$. Breeds in the wilder sections of the United States, from Southern Canada to the Gulf of Mexico, west of the central plains, in May.

310a. MEXICAN WILD TURKEY, *Meleagris gallopavo mexicana*. Eggs, indistinguishable from those of No. 310. Breeds in Southwestern United States, from Texas to Arizona, south over the table-lands of Mexico.

FAMILY XXXI. — CRACIDÆ. CURASSOWS and GUANS.

North American species of this family place their eggs in trees or bushes, and they are plainly colored. The nests are roughly constructed of sticks, grass, leaves, etc.

311. CHACHALACA, *Ortalis vetula macalli*. Eggs, 3 or 4, oblong, oval, buffy, unspotted, but with the shell conspicuously roughened; $1.65 + 2.35$ to $1.67 + 2.40$. Breeds in the valley of the Rio Grande, and southward into Mexico, in April.

ORDER XI. — COLUMBÆ. Pigeons.

Eggs, few in number, usually 2; white, or creamy, and unmarked. Nests of sticks, roughly constructed; and in American species, as a rule, placed in trees, but occasionally on the ground.

FAMILY XXXII. — COLUMBIDÆ. PIGEONS and DOVES.

Eggs, white or creamy in color, elliptical in form; size alone distinguishes them. Unless otherwise mentioned, the nests are placed in elevated situations.

312. BAND-TAILED PIGEON, *Columba fasciata*. Eggs, 2, creamy; $1.15 + 1.49$ to $1.20 + 1.55$. Nests, placed on the ground. Breeds throughout Western United States, from

Washington Territory and New Mexico south to Guatemala, in April.

312a. VIOSCA'S PIGEON, *Columba fasciata vioscae*. A new sub-species, described by Mr. Brewster in the "Auk" for January, 1888. Breeds in Lower California. Eggs unknown.

313. RED-BILLED PIGEON, *Columba flavirostris*. Eggs, 2, creamy; $1.00 + 1.45$ to $1.06 + 1.48$. Breeds on the southern border of the United States, from Arizona and the Rio Grande Valley, south to Costa Rica.

314. WHITE-CROWNED PIGEON, *Columba leucocephala*. Eggs, 2, creamy white; $1.02 + 1.40$ to $1.05 + 1.45$. Nests placed on the ground or on bushes or low trees. Breeds on the Florida Keys, Bahamas, Greater Antilles, and coast of Honduras, in June.

315. PASSENGER PIGEON, *Ectopistes migratorius*. Eggs, elliptical, sometimes oval, white; $1.00 + 1.50$ to $1.12 + 1.55$. Breeds in suitable locations, in Eastern North America, from Hudson's Bay south, at least to Pennsylvania, and west to the Great Plains. Now very rare even in the wildest sections.

316. MOURNING DOVE, *Zenaidura macroura*. (Type, Plate IX.) Eggs, often oval, varying from white to creamy; $.75 + 1.02$ to $.90 + 1.23$. Nests in trees. Breeds throughout North America, from Southern Maine, Southern Canada, and Oregon, south to Panama and Key West; in May, or earlier, in the more southern sections.

317. ZENAIDA DOVE, *Zenaida zenaida*. Eggs, white; $1.00 + 1.20$ to $1.05 + 1.30$. Nests placed on the ground or in trees or bushes. Breeds rarely on the Florida Keys, not uncommonly on the Bahamas, Greater Antilles, and coast of Yucatan, in May and June.

318. WHITE-FRONTED DOVE, *Eugypptila albifrons*. Eggs, creamy; $.88 + 1.17$ to $.98 + 1.25$. Breeds in the valley of the Lower Rio Grande in Texas, and southward to Guatemala, in April.

319. WHITE-WINGED DOVE, *Melopelia leucoptera*. Eggs, decidedly creamy; $.94 + 1.31$ to $.95 + 1.35$. Breeds on the southern border of the United States, from Texas, New Mexico, Arizona, and Lower California, southward to Costa Rica and the West Indies, in May.

320. GROUND DOVE, *Columbigallina passerina*. Eggs, white; $.63 + .80$ to $.65 + .90$. Nests placed on the ground or in trees or bushes. Breeds in the South Atlantic and Gulf States, Texas, New Mexico, Arizona, and California, in May.

320a. MEXICAN GROUND DOVE, *Columbigallina passerina pallescens*. Eggs, indistinguishable from those of No. 320, and nests in similar situations. Breeds in Southwestern United States, south through Mexico to Central America.

321. INCA DOVE, *Scardafella inca*. Eggs, white; $.60 + .82$ to $.72 + .95$. Nests placed in trees or bushes. Breeds in the Rio Grande Valley, Arizona, and Lower California, south to Guatemala, in May.

322. KEY WEST QUAIL DOVE, *Geotrygon martinica*. Eggs appear to be undescribed. Nests are said to be placed on the ground or in trees or bushes. Extralimital; breeds in the West Indies and Bahamas; birds perhaps casual on the Florida Keys. Time of nesting is probably May.

323. BLUE-HEADED QUAIL DOVE, *Starnoenas cyanocephala*. Eggs, white; $1.05 + 1.40$ to $1.10 + 1.45$. Extralimital; breeds in Cuba; possibly occurring on the Florida Keys, but this is doubtful.

323a. RUDDY QUAIL DOVE, *Geotrygon montana*. Eggs, probably similar to those of No. 332. A single specimen of this extralimital species was obtained on Key West, Dec. 8, 1888, and recorded by Scott in the "Auk" for April, 1889. Breeds in the Greater Antilles.

ORDER XII.—RAPTORES. Birds of Prey.

Eggs, variable in form and color, either plain or spotted, placed on the ground, in caves, holes of trees, or other natural cavities, or in trees.

FAMILY XXXIII.—CATHARTIDÆ. AMERICAN VULTURES.

Eggs, not exceeding 2, long, elliptical in form, and usually spotted. Nests usually placed on the ground or near it.

324. CALIFORNIA VULTURE, *Pseudogryphus californianus*. Eggs, 1 or 2, long, oval, but more pointed at the smaller end, pale greenish blue, unspotted; $2.38 + 4.40$ to $2.50 + 4.50$. Breeds in the Pacific coast region of the United States, from Oregon southward, and in the interior to Southern Utah. Known by the large size.

325. TURKEY VULTURE, *Cathartes aura*. (Type, Plate VII.) Eggs, 1 or 2, elliptical or oval, dirty white, or creamy, spotted and blotched, irregularly, often quite coarsely, but sometimes more thickly on the larger end, with reddish brown and umber; $1.80 + 2.65$ to $1.90 + 2.75$. Nests usually placed on the ground, or often in hollow logs. Breeds throughout the United States from New Jersey, Ohio Valley, and Washington Territory, southward to Patagonia; in Florida in February, farther north a little later.

326. BLACK VULTURE, *Catharista atrata*. Eggs, indistinguishable from those of No. 325. Nests placed on the ground or in hollow logs. Breeds from North Carolina and the Lower Ohio Valley region, southward through Mexico, Central America, the West Indies, and most of South America; in the United States in March and April.

FAMILY XXXIV.—FALCONIDÆ. FALCONS, HAWKS,
EAGLES, ETC.

Eggs, either plain or spotted. Nests, in the majority of cases, placed in trees, composed of sticks and other coarse material.

327. SWALLOW-TAILED KITE, *Elanoides forficatus*. Eggs, 2 to 4, oval, greenish white, spotted and blotched irregularly and broadly with brown and umber of varying shades; $1.18 + 1.87$ to $1.50 + 1.97$. Breeds throughout Southern United States, from Pennsylvania and Minnesota, southward throughout Central and South America, westward to the Great Plains, in May. Nests placed in trees.

328. WHITE-TAILED KITE, *Elanus leucurus*. Eggs, 4 to 6, rather spherical, bluish white, irregularly but boldly spotted and blotched with brown and umber of varying shades; $1.44 + 1.62$ to $1.48 + 1.64$. Breeds throughout Southern United States, from South Carolina, Southern Illinois, and California, southward to Chili and Buenos Ayres; in May in the United States. Nests in trees.

329. MISSISSIPPI KITE, *Ictinia Mississippiensis*. Eggs, 2 or 3, rather spherical, greenish white, thickly spotted and blotched with deep chocolate, brown, and black; $1.30 + 1.50$ to $1.32 + 1.52$. Breeds from Southern United States, southward from South Carolina, on the coast, and Wisconsin and Minnesota, in the interior, to Mexico, in May. Nests in trees.

330. EVERGLADE KITE, *Rostrhamus sociabilis*. Eggs, 1 or 2, oval, bluish white, spotted and blotched irregularly with brown and umber of varying shades; $1.40 + 1.55$ to $1.55 + 1.76$. Breeds in Southern Florida, in the Everglades, in April; also in Cuba, Eastern Mexico, Central America, southward through Eastern South America to the Argentine Republic. Nests placed on the tops of grass or in low bushes.

331. MARSH HAWK, *Circus hudsonius*. Eggs, 4 to 6, sometimes 7 and 8, oval, greenish white, occasionally finely spotted with pale brown or lilac; $1.42 + 1.80$ to $1.45 + 1.88$. Breeds throughout North America in suitable locations, south to Panama, in the more northern sections in May. Nests usually placed on the ground in marshy districts.

332. SHARP-SHINNED HAWK, *Accipiter velox*. (Type, Plate V.) Eggs, 3 to 5, rather spherical, bluish white, quite

coarsely spotted with brown and umber of varying shades; $1.17 + 1.20$ to $1.20 + 1.60$. Breeds throughout North America, excepting, perhaps, Florida, in the more northern sections, in May. Nests in trees.

333. COOPER'S HAWK, *Accipiter cooperi*. (Type, Plate V.) Eggs, 2 to 4, rather spherical, pale bluish white, often spotted with pale reddish brown; $1.90 + 1.50$ to $2.10 + 1.60$. Breeds throughout North America, excepting Florida, in May, in the more northern portions, and a little earlier in the south.

334. AMERICAN GOSHAWK, *Accipiter atricapillus*. Eggs, 3 or 4, varying from spherical to oval, bluish white, often finely mottled with pale reddish brown; $1.82 + 2.30$ to $1.92 + 2.32$. Breeds from Maine northward, in May. Nests placed in trees.

334a. WESTERN GOSHAWK, *Accipiter atricapillus striatulus*. Eggs, indistinguishable from those of No. 334. Breeds in Western North America.

335. HARRIS'S HAWK, *Parabuteo unicinctus harrisi*. Eggs, 2 to 4, varying from oval to spherical, bluish white, usually unspotted, but occasionally marked with reddish and purplish brown; $1.50 + 2.00$ to $1.70 + 2.20$. Breeds in Mississippi, Texas, and Arizona, southward to Panama, in May. Nests in trees.

336. EUROPEAN BUZZARD, *Buteo buteo*. Eggs, 3 or 4, rather spherical, yellowish white, spotted and blotched with brown, umber, and lilac of varying shades; $1.75 + 2.75$ to $1.80 + 2.80$. Extralimital. Occurs in Europe and Western Asia; bird accidental in Michigan.

337. RED-TAILED HAWK, *Buteo borealis*. Eggs, 2 or 3, elliptical or oval, bluish white, usually, but not always, spotted and blotched with brown and umber of varying shades; $1.65 + 2.10$ to $1.80 + 2.25$. Breeds throughout Eastern North America, excepting Florida, west to the Great Plains, in March and April. Nests placed in trees.

337a. KRIDER'S HAWK, *Buteo borealis kriderii*. Eggs.

indistinguishable from those of No. 337. Breeds on the plains of the United States, from Minnesota to Texas.

337*b*. WESTERN RED-TAIL, *Buteo borealis calurus*. Eggs, as a rule, indistinguishable from those of No. 337, but are often quite finely spotted. Breeds throughout Western North America, from the Rocky Mountains to the Pacific, south into Mexico.

337*c*. SAINT LUCAS RED-TAIL, *Buteo borealis lucasanus*. Eggs, probably indistinguishable from those of No. 337, but are perhaps smaller. Breeds in the peninsula of Lower California.

338. HARLAN'S HAWK, *Buteo harlani*. Eggs, probably undescribed. Breeds in Texas and possibly in Kansas and Pennsylvania.

339. RED-SHOULDERED HAWK, *Buteo lineatus*. Eggs, 3 or 4, spherical or elliptical, bluish white, usually, but not always, spotted and blotched irregularly with brown and umber of varying shades; $1.70 + 2.20$ to $1.80 + 2.30$. Breeds throughout Eastern North America, west to Texas and the Plains, south to the Gulf coast and Mexico, in April in the more northern districts, earlier farther south.

339*a*. FLORIDA RED-SHOULDERED HAWK, *Buteo lineatus alleni*. Three eggs, as a rule, indistinguishable from those of No. 339, but are seldom unspotted, and somewhat smaller. Breeds in Florida, in February and March.

339*b*. RED-BELLIED HAWK, *Buteo lineatus elegans*. Eggs, indistinguishable from those of No. 339, but are, as a rule, smaller. Breeds throughout Western United States, from Western Texas to California, and south into Mexico.

340. ZONE-TAILED HAWK, *Buteo abbreviatus*. Eggs, 2 to 4, spherical, yellowish white, spotted and blotched quite coarsely with brown and umber of varying shades; $1.70 + 2.15$ to $1.72 + 2.19$. Breeds in Texas, Arizona, and Southern California, south to Northern South America, in May.

341. WHITE-TAILED HAWK, *Buteo albicaudatus*. Eggs, 2

to 4, rather spherical, yellowish white, spotted and blotched with brown and umber of varying shades; $1.75 + 2.35$ to $1.80 + 2.38$. Nests placed on low trees and bushes. Breeds in the Rio Grande Valley, Texas, and southward through Mexico and Central America, and most of South America.

342. SWAINSON'S HAWK, *Buteo swainsoni*. Eggs, 4 to 6, varying from spherical to oval, yellowish white, spotted and blotched irregularly and rather faintly with reddish brown, with occasional markings of purplish; $1.75 + 2.30$ to $1.82 + 2.32$. Breeds in Western North America, from Wisconsin, Illinois, Arkansas, and Texas, to the Pacific coast; north to the Arctic regions, and south to Buenos Ayres, in May. Nests placed in trees.

343. BROAD-WINGED HAWK, *Buteo latissimus*. Eggs, 3 or 4, elliptical, oval, or spherical, dirty white, spotted and blotched, usually quite faintly but thickly, with reddish brown, but occasionally more heavily with umber; $1.68 + 2.15$ to $1.70 + 2.20$. Breeds in Eastern North America, from New Brunswick and the Saskatchewan region, to Texas and Mexico, southward to Central America, Northern South America, and the West Indies, in May in the more northern, and a little earlier farther south. Nests placed in trees.

344. SHORT-TAILED HAWK, *Buteo brachyurus*. Eggs, unknown, extralimital. Occurs in Mexico, Central America, and most of South America. Bird occasionally, perhaps regularly, in Florida.

345. MEXICAN BLACK HAWK, *Urubitinga anthracina*. Eggs, 2 or 3, oval, white, unspotted; $2.08 + 1.70$ to $2.10 + 1.75$. Breeds from Arizona southward to Northern South America. Nests placed in large trees.

346. MEXICAN GOSHAWK, *Asturina plagiata*. Eggs, 2 or 3, rounded oval, white, showing a faint tinge of bluish, unspotted; $1.60 + 2.00$ to 1.65 to 2.04 . Breeds in the southwestern border of the United States, southward to Panama, in May and June. Nests placed in trees.

347. ROUGH-LEGGED HAWK, *Archibuteo lagopus*. Eggs, 4 to 6, varying from spherical to oval, ashy or yellowish white, spotted and blotched irregularly and rather finely and faintly with reddish brown and umber, with frequent markings of purplish; $1.75 + 2.12$ to $1.82 + 2.26$. Extralimital. Breeds in the northern parts of the Old World. Bird accidental in Alaska.

347a. AMERICAN ROUGH-LEGGED HAWK, *Archibuteo lagopus sancti-johannis*. Eggs, indistinguishable from those of No. 347, both in form and color. Breeds in North America, north of the United States, in May and June. Nests placed on trees or occasionally on cliffs.

348. FERRUGINOUS ROUGH-LEG, *Archibuteo ferrugineus*. Eggs, 2 to 5, rather spherical, varying from white to creamy, spotted and blotched with brown and umber of varying shades; $1.95 + 2.43$ to $2.00 + 2.60$. Breeds in Western North America, generally in May and June. Nests placed in trees, as a rule, but occasionally on the ground.

349. GOLDEN EAGLE, *Aquila chrysaetos*. Eggs, 2 or 3, rarely 4, varying from elliptical to spherical, dirty white or creamy, usually spotted and dotted with pale reddish brown, but occasionally unmarked; $2.18 + 2.65$ to $2.52 + 3.30$. Breeds throughout the mountainous regions of North America, south to Mexico. Nests, as a rule, placed on cliffs, rarely on trees, and more rarely on the ground.

350. HARPY EAGLE, *Thrasaëtus harpyia*. Eggs, unknown to me. Extralimital. Occurs in South America, south to Paraguay. Bird casual in the lower Rio Grande Valley, Texas.

351. GRAY SEA EAGLE, *Haliaeëtus albicilla*. Eggs, 2 or 3, rather spherical, white, usually unspotted, but occasionally showing faint marks of light brown; $2.25 + 3.00$ to $2.30 + 3.10$. Nests placed on cliffs. Extralimital. Breeds in Northern Europe and Asia; bird occasional in Southeastern Greenland.

352. BALD EAGLE, *Haliaeetus leucocephalus*. Eggs, 1, 2, or 3, rarely four, rather spherical, white, unspotted; $2.25 + 2.75$ to $2.75 + 3.00$. Breeds throughout North America, south to Mexico; in Florida in December and January, in Mississippi in January, in Maryland in February, in Maine in March, and farther north, later. Nests usually placed in trees, but sometimes on cliffs.

353. WHITE GYRFALCON, *Falco islandus*. Eggs, 3 or 4, rather spherical, yellowish white, finely, but so thickly spotted as to nearly obscure the ground color, with reddish brown; $1.70 + 2.37$ to $1.75 + 2.45$. Breeds in the Arctic regions, including Arctic America and Greenland, in May. Nests placed in trees or on cliffs.

354. GRAY GYRFALCON, *Falco rusticolus*. Eggs, indistinguishable from those of No. 353, and nesting habits are similar. Breeds in Iceland, Southern Greenland, and North-eastern North America. Nests usually placed on cliffs.

354a. GYRFALCON, *Falco rusticolus gyrfalco*. Eggs, indistinguishable from those of No. 353, and the nesting habits are similar. Breeds in the interior of Arctic America, from Hudson's Bay to Alaska.

354b. BLACK GYRFALCON, *Falco rusticolus obsoletus*. Eggs, indistinguishable from those of No. 353. Breeds in Labrador, in May. Nests placed on cliffs.

355. PRAIRIE FALCON, *Falco mexicanus*. Eggs, 2 or 3, rather spherical, pinkish white, blotched, spotted, and minutely freckled with reddish brown and purplish; $1.60 + 2.15$ to $1.65 + 2.27$. Breeds in the United States, from the eastern border of the plains to the Pacific, south into Mexico, in May and June. Nests placed on cliffs.

356. DUCK HAWK, *Falco peregrinus anatum*. (Type, Plate IX.) Eggs, 3 or 4, rounded oval, deep creamy, spotted and blotched with such large, confluent markings of rich chocolate brown that the ground color is nearly or quite obscured. Breeds throughout North America, in the wild mountainous

regions, but more commonly north of the United States; in March in the more southern districts; April, in New England; and in May in the Arctic regions. Nests placed on cliffs or occasionally in trees.

356a. PEAL'S FALCON, *Falco peregrinus pealei*. Eggs, indistinguishable from those of No. 356, and the nesting habits are similar. Breeds in the Pacific coast region of North America, from Oregon to the Aleutian and Commander Islands.

357. PIGEON HAWK, *Falco columbarius*. Eggs, 4 to 7, but usually 5, rather spherical, varying from creamy to deep purplish rufous, thickly sprinkled, spotted, and blotched with reddish brown of varying shades; $1.20 + 1.55$ to $1.28 + 1.75$. Breeds in Northern North America, north of the United States, as a rule, especially in the eastern portions, but may nest in the mountains south of its general range, in May. Nests placed in trees, or rarely on cliffs.

357a. BLACK MERLIN, *Falco columbarius suckleyi*. Eggs, probably indistinguishable from those of No. 357, and the nesting habits are similar. Breeds in the northwest coast region of North America, from California to Sitka.

358. RICHARDSON'S MERLIN, *Falco richardsonii*. Eggs, indistinguishable in form and color from those of No. 357, but are probably larger. Breeds in the interior and western plains of North America, from the Mississippi River to the Pacific coast, north to the Arctic regions.

358a. MERLIN, *Falco regulus*. Eggs, varying from oval to spherical in form; from creamy to reddish in color, spotted, dotted, and blotched with reddish brown and umber, frequently so thickly as to obscure the ground color; $1.62 + 1.22$ to $1.65 + 1.25$. Extralimital; breeds in Europe. Bird accidental in Greenland. See "Auk" for January, 1888, p. 395.

359. APLOMADO FALCON, *Falco fusco-coerulescens*. Eggs, 2 to 4, rather spherical, white, thickly spotted, sprinkled, and blotched with reddish and Vandyke brown; $1.63 + 1.78$ to

1.69 + 1.81. Breeds in Texas and New Mexico, south to Patagonia; in Southern South America in January; in Texas, probably in April or May. Nests placed in trees or bushes.

359a. KESTREL, *Falco tinnunculus*. Eggs, rather spherical in form, varying from creamy to reddish in color, spotted, dotted, and blotched so thickly with cinnamon or reddish brown as to sometimes nearly obscure the ground color; 1.52 + 1.29 to 1.60 + 1.30. Extralimital; breeds in Europe. Bird accidental in Massachusetts. See "Auk" for January, 1888, p. 110.

360. AMERICAN SPARROW HAWK, *Falco sparverius*. (Type, Plate V.) Eggs, 4 to 7, quite spherical, creamy or light buff, sprinkled, spotted, or blotched, usually thickly enough to nearly obscure the ground markings; 1.05 + 1.20 to 1.35 + 1.48. Breeds throughout the whole of North America, but is rare in New England. Nests placed in holes of trees, or occasionally in holes of cliffs; the eggs are deposited in Florida in April, in May farther north.

361. CUBAN SPARROW HAWK, *Falco sparverioides*. Eggs, 3 or 4, rather spherical, quite sparsely spotted and mottled with yellowish brown; 1.08 + 1.28 to 1.10 + 1.30. Breeds in Cuba, thus is extralimital. Bird said to be accidental in Florida (occurrence doubtful).

362. AUDUBON'S CARACARA, *Polyborus cheriway*. Eggs, 3 or 4, rather spherical, varying from yellowish white to tan-color, sprinkled, spotted, and blotched, with sepia-brown, often so thickly as to nearly cover the surface; but in other specimens the markings will be confined to the larger end, and all gradations occur between these extremes; 1.75 + 2.25 to 1.90 + 2.44. Breeds in Middle Florida, Texas, Arizona, and Lower California, south to Ecuador and Guiana, in April, May, and June. Nests placed in trees.

363. GUADALUPE CARACARA, *Polyborus lutosus*. Eggs, indistinguishable from those of No. 362. Breeds in the Guadalupe Islands, Lower California.

364. AMERICAN OSPREY, *Pandion haliaëtus carolinensis*. Eggs, 2 to 4, rather spherical, varying from creamy to decidedly pinkish, spotted, blotched, and sprinkled, often so thickly as to cover the entire surface. In other specimens the markings, which are reddish or purplish brown or umber, will be confined to the larger end, while rarely one will occur which is unmarked, and all gradations will occur between; $1.60 + 2.30$ to $1.90 + 2.56$. Breeds throughout North America, in the wilder sections, from Hudson's Bay and Alaska, southward to Northern South America, in April and May. Nests placed in trees, or occasionally on the ground.

FAMILY XXXV.—STRIGIDÆ. BARN OWLS.

Eggs, always white, oval in form, usually placed in roughly constructed nests, situated in caves, ruined buildings, holes in cliffs, etc.

365. AMERICAN BARN OWL, *Strix pratincola*. (Type, Plate VII.) Eggs, 3 to 8; $1.20 + 1.65$ to $1.25 + 1.70$. Breeds throughout the warmer parts of North America, from the Middle States and California south through Mexico, in April and May. Nests sometimes placed in ruins, but oftener in holes of trees, or in holes in cliffs or banks of earth.

FAMILY XXXVI.—BUBONIDÆ. HORNNED OWLS, ETC.

Eggs, varying from spherical to oval, with the former-named shape predominating; size alone distinguishes them, as they are all white. Nests in a variety of situations.

366. AMERICAN LONG-EARED OWL, *Asio wilsonianus*. Eggs, 3 to 6, spherical or rounded oval; $1.30 + 1.35$ to $1.50 + 1.65$. Breeds throughout temperate North America; in March in the southern portion, and in April and May farther north, and nests have been taken as late as July. Nests usually placed in the deserted structures of other birds, but the owls occasionally construct a nest of their own; thus they usually breed in trees.

367. SHORT-EARED OWL, *Asio accipitrinus*. Eggs, 4 to 7, rather elliptical; $1.22 + 1.50$ to $1.30 + 1.60$. Breeds throughout temperate and Arctic North America, but more abundantly in the northern portions, in April and May; also in the Old World. Nests placed on the ground or in low bushes.

368. BARRED OWL, *Syrnium nebulosum*. Eggs, 2 or 3, rather spherical; $1.55 + 1.85$ to $1.70 + 2.00$. Breeds in the wilder portions of Eastern United States, excepting Florida, in March and April. Nests placed in holes of trees or in trees; the deserted nest of some large bird being frequently used.

368a. FLORIDA BARRED OWL, *Syrnium nebulosum allani*. Eggs, 3 or 4, indistinguishable from those of No. 368, but are a little smaller; the nesting habits are similar. Breeds in Florida, and possibly in Texas, in February and March.

369. SPOTTED OWL, *Syrnium occidentale*. Eggs, according to Ridgway, measure $1.80 + 2.05$. The bird has been taken in New Mexico, Arizona, California, Lower California, and Mexico.

370. GREAT GRAY OWL, *Scotiaptex cinerea*. Eggs, 3 or 4, rather oval; $1.78 + 2.25$ to $1.80 + 2.30$. Breeds in Arctic America, in May. Nests placed in trees.

370a. LAPP OWL, *Scotiaptex cinerea lapponica*. Eggs, indistinguishable from those of No. 370. Extralimital. Breeds in the arctic portions of the Old World; bird accidental in Alaska.

371. RICHARDSON'S OWL, *Nyctala tengmalmi richardsoni*. Eggs, 4 to 5, rather spherical; $1.05 + 1.25$ to $1.08 + 1.28$. Breeds in Arctic America, south at least to the Magdalen Islands, Gulf of St. Lawrence, in May. Nests placed in holes of trees.

372. SAW-WHET OWL, *Nyctala acadica*. Eggs, 3 to 5, rather spherical; $.95 + .88$ to $.90 + 1.00$. Breeds throughout North America, from the Middle States northward, in May. Nests placed in holes of trees.

373. SCREECH-OWL, *Megascops asio*. (Type, Plate VII.)

Eggs, 4 to 6, rather spherical; $1.30 + 1.50$ to $1.35 + 1.55$. Breeds in temperate Eastern North America, south to Georgia and west to the plains, in April and May. Nests usually placed in holes of trees.

373a. FLORIDA SCREECH-OWL, *Megascops asio floridanus*. Eggs, 2 or 3, rather spherical; $1.10 + 1.25$ to $1.15 + 1.30$. Breeds in Southern Georgia and Florida, in March and April.

373b. TEXAN SCREECH-OWL, *Megascops asio macalli*. Eggs, 2 or 3, spherical; $.95 + 1.13$ to $1.00 + 1.15$. Breeds in the valley of the Lower Rio Grande, Texas, south to Guatemala, in March.

373c. CALIFORNIA SCREECH-OWL, *Megascops asio bendirei*. Eggs, indistinguishable from those of No. 373. Breeds in the coast regions of California, in April.

373d. KENNICOTT'S SCREECH-OWL, *Megascops asio kennicottii*. Eggs, indistinguishable from those of No. 373. Breeds in the northwest coast region from Sitka to Oregon, and eastward to Idaho and Montana, in May.

373e. ROCKY MOUNTAIN SCREECH-OWL, *Megascops asio maxwelliae*. Eggs, indistinguishable from those of No. 373. Breeds in the Rocky Mountains, from Colorado to Montana, in May.

373f. MEXICAN SCREECH-OWL, *Megascops asio trichopsis*. Eggs, indistinguishable from those of No. 373, but are, perhaps, a little smaller. Breeds in New Mexico, Arizona, Lower California, and Northwestern Mexico.

374. FLAMMULATED OWL, *Megascops flammeolus*. Eggs, 2 or 3, spherical; $.96 + 1.13$. Breeds in Colorado, and probably south to Mexico and Guatemala, in June. Nests placed in holes of trees.

375. GREAT HORNED OWL, *Bubo virginianus*. Eggs, 2 or 3, rather spherical; $1.81 + 2.18$ to $2.00 + 2.85$. Breeds throughout Eastern North America, west to the Mississippi Valley, and from Labrador south to Costa Rica; in December in Florida; January, February, and March as we advance

northward. Nests placed in trees, often in the deserted nests of other large birds, or in natural cavities of stubs.

375a. WESTERN HORNED OWL, *Bubo virginianus subarcticus*. Eggs, indistinguishable from those of No. 375. Breeds in Western United States, from the Great Plains, westward; southward to the Mexican table-lands.

375b. ARCTIC HORNED OWL, *Bubo virginianus arcticus*. Eggs, indistinguishable from those of No. 375. Breeds in the interior of Arctic America.

375c. DUSKY HORNED OWL, *Bubo virginianus saturatus*. Eggs, indistinguishable from those of No. 375. Breeds in the northwest coast region, from Columbia River northward; also in Labrador.

376. SNOWY OWL, *Nyctea nyctea*. Eggs, 4 to 8, oblong oval; $1.85 + 2.50$ to $1.88 + 2.55$. Breeds in the northern portions of the Northern Hemisphere, in North America, usually north of the United States, in May and June. Nests placed on the ground or on rocks.

377. HAWK OWL, *Surnia ulula*. Eggs, 4 to 7, oblong oval; $1.20 + 1.50$ to $1.30 + 1.62$. Breeds in the arctic portions of the Old World, and is thus extralimital; bird casual in Alaska.

377a. AMERICAN HAWK OWL, *Surnia ulula caparoch*. Eggs, 4 to 7, similar in form and size to those of No. 377. Breeds in Arctic America, in April and May. Nests placed in high trees.

378. BURROWING OWL, *Speotyto cunicularia hypogæa*. Eggs, 5 to 10, rounded oval; $1.05 + 1.30$ to $1.13 + 1.35$. Breeds in the United States, from the Pacific coast to the Great Plains, south to Central America, in April. Nests placed in the burrows dug by the prairie dog.

378a. FLORIDA BURROWING OWL, *Speotyto cunicularia floridana*. Eggs, indistinguishable from those of No. 378. Breeds in Florida, in March and April, probably in the holes dug by the Gopher turtle.

379. PYGMY OWL, *Glaucidium gnoma*. Eggs, 2 or 3, oblong oval, more pointed at one end; $.87 + 1.17$ to $.90 + 1.18$. Breeds in Western United States, from the Pacific coast to Colorado, and from British Columbia south to the table-lands of Mexico, excepting California and coast north, in May. Nests placed in holes of trees.

379a. CALIFORNIA PYGMY OWL, *Glaucidium gnoma californicum*. Eggs, indistinguishable from those of No. 379, and the nesting habits are similar. Breeds in California and coast region, north into British Columbia.

379b. HOSKINS'S PYGMY OWL, *Glaucidium hoskinsii*. Described by Mr. Brewster, in "Auk" for April, 1888. Eggs, unknown. Breeds in Lower California.

380. FERRUGINOUS PYGMY OWL, *Glaucidium phalænoides*. Eggs, probably indistinguishable from those of No. 379. Breeds in Texas and Arizona, south to Southern Brazil.

381. ELF OWL, *Micropallus whitneyi*. Eggs, 3 or 4, rather spherical; $.90 + 1.00$ to $.95 + 1.67$. Breeds in Southern and Lower California and Arizona, south into Mexico, in May and June. Nests placed in the deserted holes of Woodpeckers, usually made in the giant cactus.

ORDER XIII.—PSITTACI. Parrots.

Eggs of this order are usually placed in nests built in natural cavities of trees, or in holes in river banks.

FAMILY XXXVII.—PSITTACIDÆ. PARROTS AND PARQUETS.

Eggs, white or greenish, unspotted; the number deposited is probably 2, but as a number of individuals often lay in one cavity, this is, in some species, uncertain.

382. CAROLINA PAROQUET, *Conurus carolinensis*. Eggs, 2, rather oval, pointed at one end, creamy white; $1.07 + 1.35$ to

1.14 + 1.45. Breeds in the Gulf States and Lower Mississippi Valley, but only in particular locations, even in this now limited range. It formerly occurred over a much more extended section, but is now evidently becoming exterminated. Eggs, deposited in June, or, possibly, earlier.

ORDER XIV. — COCCYGES. Cuckoos, etc.

Eggs, usually elliptical, often bluish or greenish, and frequently covered with a chalky incrustation, soft when fresh, but hardening upon exposure.

FAMILY XXXVIII. — CUCULIDÆ. CUCKOOS, ANIS, ETC.

Eggs, few or many, deposited in nests that are constructed of sticks and that are almost always placed in trees or bushes, seldom, if ever, on the ground.

383. ANI, *Crotophaga ani*. (Type, Plate X.) Eggs, 4 to 10, elliptical or oval, pale greenish blue, but this color is nearly or quite concealed by a white, calcareous deposit; 1.10 + 1.40 to 1.15 + 1.50. Breeds on the Bahamas, in the West Indies, and Eastern South America; in the former named locality in April. Nests placed in trees.

384. GROOVE-BILLED ANI, *Crotophaga sulcirostris*. Eggs, similar in form and color to those of No. 383, but are smaller; .80 + 1.15 to .90 + 1.25. Breeds in Lower California and valley of the Lower Rio Grande, Texas, south to Northern South America.

385. ROAD-RUNNER, *Geococcyx californianus*. Eggs, 2 to 12, rounded oval, bluish green, covered so thickly with a hard calcareous deposit as to conceal this color; 1.20 + 1.55 to 1.22 + 1.60. Breeds in Texas, New Mexico, Southern Colorado, and westward to California, south into Mexico, in April and May.

386. MANGROVE CUCKOO, *Coccyzus minor*. Eggs, 2 to 4, indistinguishable from those of No. 387. Breeds throughout

the West Indies, south of the Bahamas, and southward ; possibly also, rarely, on the Florida Keys.

386a. MAYNARD'S CUCKOO, *Coccyzus minor maynardi* (Ridgway). Eggs, unknown, but probably indistinguishable from those of No. 387. Breeds on the Bahamas, and probably on the Florida Keys and adjacent mainland. This species has recently been described by Mr. Robert Ridgway in his work, "Manual of North American Birds," 1887, p. 274, and is what was formerly in part considered as the Mangrove Cuckoo, *C. minor*.

387. YELLOW-BILLED CUCKOO. (Type, Plate X.) Eggs, 2 to 4, elliptical, light greenish blue, unspotted, but sometimes overwashed with whitish ; $.75 + 1.10$ to $.80 + 1.28$. Distinguished from those of No. 388 by the large size and pale colors. Breeds in temperate North America, from New Brunswick and Canada, Minnesota, Nevada, and Oregon, south to Costa Rica, but does not nest in Florida at all commonly, and is of irregular occurrence in New England. Eggs, deposited in June. Nests placed in trees or bushes.

387a. CALIFORNIA CUCKOO, *Coccyzus americana occidentalis*. Eggs, similar to those of No. 387. Breeds in Western United States, from Oregon south through the table-lands of Mexico, east to New Mexico and Colorado. See Ridgway in "Manual of North American Birds," 1887, p. 273.

388. BLACK-BILLED CUCKOO, *Coccyzus erythrophthalmus*. Eggs, 2 to 4, elliptical, quite dark bluish green, occasionally spotted with a darker shade of the same ; $.70 + 1.00$ to $.75 + 1.25$. Breeds in Eastern North America, from Labrador and Manitoba, south to Florida, west to the Rocky Mountains.

FAMILY XXXIX. — TROGONIDÆ. TROGONS.

Members of this family are said to place their nests in holes of trees, but I have never seen an egg of any of the species.

389. COPPERY-TAILED TROGON. Eggs, evidently unknown,

—at least, I have never seen a description of them. Breeds in Mexico, north to the valley of the Lower Rio Grande in Texas.

FAMILY XL.—ALCIDINIDÆ. KINGFISHERS.

Eggs, white with the surface polished, rather spherical, and are placed in holes in banks of earth, excavated by the birds.

390. BELTED KINGFISHER, *Ceryle alcyon*. Eggs, 4 to 6, oval; $1.08 + 1.20$ to $1.16 + 1.40$. Breeds throughout North America, south to Panama, Bahamas, and West Indies, including Florida, in May. Nests placed in banks, often at some distance from water.

391. TEXAN KINGFISHER, *Ceryle cabanisi*. Eggs, 4 to 6, oval; $.71 + .95$ to $.75 + 1.00$. Breeds in the valley of the Lower Rio Grande, Texas, and Lower Colorado River, and Arizona, south to Ecuador and Western Peru, in April.

ORDER XV.—PICI. Woodpeckers, Wrynecks,
Etc.

Eggs, white with the surface polished, elliptical, or oval, and, in most cases, deposited in holes of trees.

FAMILY XLI.—PICIDÆ. WOODPECKERS.

Eggs, polished, white, thus size alone distinguishes them. They are, almost without exception, placed in holes of trees drilled by the birds.

392. IVORY-BILLED WOODPECKER, *Campephilus principalis*. Eggs, 4 or 5, oblong oval; $.95 + 1.25$ to $1.00 + 1.40$. Breeds in the Gulf States and Lower Mississippi Valley, where they are now only locally distributed. Eggs, deposited in April.

393. HAIRY WOODPECKER, *Dryobates villosus*. Eggs, 4 or 5, elliptical or oval; $.65 + .70$ to $.75 + .80$. Breeds in the middle portion of the Eastern United States, from the Atlantic coast to the Great Plains, in May.

393a. NORTHERN HAIRY WOODPECKER, *Dryobates villosus leucomelas*. Eggs, similar to those of No. 393, but are a little larger. Breeds in Northern North America, south to the northern border of the United States, in May.

393b. SOUTHERN HAIRY WOODPECKER, *Dryobates villosus audubonii*. Eggs, indistinguishable from those of No. 393, but are, perhaps, a little smaller. Breeds in the Southern United States, east of the plains.

393c. HARRIS'S WOODPECKER, *Dryobates villosus harrisii*. Eggs, indistinguishable from those of No. 393. Breeds in Western United States, from the Rocky Mountains to the Pacific coast, south into Mexico and Central America.

393d. CABANIS'S WOODPECKER, *Dryobates villosus hyloscopus*. Eggs, probably indistinguishable from those of No. 393. Breeds in the interior of extreme Western North America.

394. DOWNY WOODPECKER, *Dryobates pubescens*. Eggs, 4 or 5, varying from elliptical to oval; $.50 + .65$ to $.55 + .70$. Breeds in Northern and Eastern North America, from British Columbia and the eastern edge of the plains, northward and eastward, in May.

394a. GAIRDNER'S WOODPECKER, *Dryobates pubescens gairdnerii*. Eggs, similar to those of No. 394, but are larger; $.80 + .90$ to $.85 + .95$. Breeds in Western United States, from the Rocky Mountains westward, in May.

394b. SMOKY WOODPECKER, *Dryobates pubescens fumidus*. Eggs, probably indistinguishable from those of No. 394. Breeds on Vancouver's Island and possibly along the coast region of United States and northward. Described by Maynard in "The Ornithologist and Oölogist" for April, 1889, p. 58.

395. RED-COCKADED WOODPECKER, *Dryobates borealis*. Eggs, 4 or 5, varying from elliptical to oval; $.55 + .70$ to $.65 + .75$. Breeds in Southeastern United States, from New Jersey, Tennessee, and Indian Territory, south to Eastern Texas and the Gulf coast, in May.

396. TEXAN WOODPECKER, *Dryobates scalaris bairdi*. Eggs, 4 or 5, oblong oval; $.70 + .95$ to $.75 + 1.00$. Breeds in the southern border of the United States, from Texas to California, south into Mexico.

396a. SAINT LUCAS WOODPECKER, *Dryobates scalaris encasanus*. Eggs, unknown, but probably indistinguishable from those of No. 396. Breeds in Lower California.

397. NUTTALL'S WOODPECKER, *Dryobates nuttalli*. Eggs, indistinguishable from those of No. 396. Breeds in California, in May.

398. ARIZONA WOODPECKER, *Dryobates arizonæ*. Eggs, unknown, but probably not differing from those of No. 395. Breeds in Southern Arizona, south into Western Mexico, in April.

399. WHITE-HEADED WOODPECKER, *Xenopicus albolarvatus*. Eggs, 4 or 5, oblong oval; $.73 + .95$ to $.76 + 1.02$. Breeds in the Pacific coast region, from Washington Territory south to Southern California, east to the eastern slope of the Sierra Nevada.

400. ARCTIC THREE-TOED WOODPECKER, *Picoides arcticus*. Eggs, rather elliptical; $.70 + .91$ to $.76 + .92$. Breeds in Northern North America, from the Arctic regions south to the northern border of the United States, and farther south along the mountain ranges, in May.

401. AMERICAN THREE-TOED WOODPECKER, *Picoides americanus*. Eggs, varying from elliptical to oval; $.65 + .90$ to $.70 + .95$. Breeds in North America, from the northern border of the United States, northward and along the mountain ranges farther south, in May.

401a. ALASKAN THREE-TOED WOODPECKER, *Picoides americanus alascensis*. Eggs, probably similar to those of No. 401. Breeds in Alaska.

401b. ALPINE THREE-TOED WOODPECKER, *Picoides americanus dorsalis*. Eggs, probably similar to those of No. 401.

Breeds in the Rocky Mountain region of the United States, south into New Mexico.

402. YELLOW-BELLIED SAP-SUCKER, *Sphyrapicus varius*. Eggs, 4 to 7, rather oval; $.60 + .75$ to $.75 + .85$. Breeds in North America, from Northern New England northward, in May.

402a. RED-NAPED SAP-SUCKER, *Sphyrapicus varius nuchalis*. Eggs, similar in form and size to those of No. 402. Breeds in the Rocky Mountain region of the United States, south into Mexico.

403. RED-BREASTED SAP-SUCKER, *Sphyrapicus ruber*. Eggs, indistinguishable from those of No. 402. Breeds in the Pacific coast region of the United States, in May.

404. WILLIAMSON'S SAP-SUCKER, *Sphyrapicus thyroideus*. Eggs, quite similar to those of No. 402, but are a little larger; $.66 + .96$. Breeds in the Rocky Mountain region of the United States, next to the Pacific coast, in May.

405. PILEATED WOODPECKER, *Ceophloeus pileatus*. Eggs, 3 or 4, rounded oval; $.90 + 1.40$ to $1.04 + 1.50$. Breeds in the wilder, heavily wooded sections of North America, but does not occur in the settled districts. Eggs deposited in April, in the south, later farther north.

406. RED-HEADED WOODPECKER, *Melanerpes erythrocephalus*. Eggs, 4 or 5, varying from elliptical to oval; $.75 + .90$ to $.80 + 1.00$. Breeds in the United States, east of the Rocky Mountains, but rare in New England. Nests in May.

407. CALIFORNIA WOODPECKER, *Melanerpes formicivorus bairdi*. Eggs, varying from oval to elliptical; $.75 + .90$ to $.80 + 1.00$. Breeds in the Pacific coast region of the United States, east into Arizona and south into Mexico, in May.

407a. NARROW-FRONTED WOODPECKER, *Melanerpes formicivorus angustifrons*. Eggs, probably indistinguishable from those of No. 407. Breeds in Lower California.

408. LEWIS'S WOODPECKER, *Melanerpes torquatus*. Eggs, 4 to 6, varying from elliptical to oval or spherical; $.92 + 1.10$

to .95 + 1.12. Breeds in the Western United States, from the Black Hills and the Rocky Mountains to the Pacific, in May.

409. RED-BELLIED WOODPECKER, *Melanerpes carolinus*. Eggs, 4 or 5, oblong oval; .80 + 1.04 to .75 + .95. Breeds throughout Eastern United States, west to the Rocky Mountains, excepting New England, in May.

410. GOLDEN-FRONTED WOODPECKER, *Melanerpes aurifrons*. Eggs, oblong oval; .80 + 1.00 to .85 + 1.05. Breeds in Southern Texas and Eastern Mexico, in May.

411. GILA WOODPECKER, *Melanerpes uropygialis*. Eggs, 4 or 5, occasionally 6, oblong oval; .82 + 1.05 to .85 + 1.10. Breeds in Southern Arizona, Southeastern California, Lower California, and Western Mexico.

412. FLICKER, *Colaptes auratus*. (Type, Plate IX.) Eggs, 6 to 8, in the North, or 4 or 5 in the South; .75 + .90 to .80 + 1.00. Breeds throughout Northern and Eastern North America, west to the eastern slope of the Rocky Mountains and Alaska, in April in the South, and in May in New England.

413. RED-SHAFTED FLICKER, *Colaptes cafer*. Eggs, indistinguishable from those of No. 412. Breeds in the Rocky Mountain region of the United States, to the Pacific coast, north to Alaska, south to Southern Mexico.

413a. NORTHWESTERN FLICKER, *Colaptes cafer saturation*. Eggs, indistinguishable from those of No. 412. Breeds in the Northwest coast region, from Columbia River to Sitka.

414. GILDED FLICKER, *Colaptes chrysoides*. Eggs, 4 to 6, varying from oval to elliptical; .70 + .90 to .80 + .95. Breeds in Southern Arizona and Southern California, south to Cape St. Lucas.

415. GUADALUPE FLICKER, *Colaptes rufipileus*. Eggs, probably indistinguishable from those of No. 414. Breeds in Guadalupe Island, Lower California.

ORDER XVI. — MACROCHIRES. Goatsuckers,
Swifts, etc.

Eggs, 2 or 4, deposited on the ground, in holes, in caves, in hollow trees, in chimneys, or in crevices of rocky cliffs.

FAMILY XLII. — CAPRIMULGIDÆ. GOATSUCKERS, ETC.

Eggs, usually 2, elliptical, generally spotted, and deposited on the ground, without any nest.

416. CHUCK-WILLS-WIDOW, *Antrostomus carolinensis*. Eggs, 2, elliptical, pale salmon, handsomely marked with large spots and blotches of pale brown and lilac, irregularly disposed over the entire surface; $.95 + 1.30$ to $1.07 + 1.55$. Breeds in the South Atlantic and Gulf States, south through Eastern Mexico to Central America and Cuba, north into the interior to Southern Illinois, in May.

417. WHIP-POOR-WILL, *Antrostomus vociferus*. Eggs, 2, elliptical, delicate creamy white, spotted and blotched irregularly with lilac, pale lilac, and pale brown; $.75 + 1.20$ to $.80 + 1.25$. Breeds in Eastern United States, to the plains, in May.

417a. STEPHEN'S WHIP-POOR-WILL, *Antrostomus vociferus arizonæ*. Eggs, 2, elliptical, white or creamy, faintly marked with pale brown and lilac; $.86 + 1.15$ to $.87 + 1.17$. Breeds in Arizona and the table-lands of Mexico, in May.

418. POOR-WILL, *Phalænoptilus nuttalli*. Eggs, 2, elliptical, pure white, unspotted; $.80 + 1.05$ to $.81 + 1.06$. Breeds in Western United States, from the Pacific coast eastward to Eastern Nebraska and Eastern Kansas, south to Southern Mexico, in April and May.

418a. FROSTED POOR-WILL, *Phalænoptilus nuttalli nitidus*. Eggs, probably similar to those of No. 418. Breeds in Arizona and Southern Texas. Recently described by Mr. William Brewster, in the "Auk" for April, 1887.

418b. CALIFORNIA POOR-WILL, *Phalænoptilus nuttalli californicus*. Eggs, probably indistinguishable from those of No.

418. Breeds in California. See Ridgway in "Manual of North American Birds," 1887, page 588 in foot-note.

419. PARAUQUE, *Nyctidromus albicollis merrilli*. Eggs, 2, elliptical, white or creamy, spotted, blotched, and dotted with pale drab, lilac, and lavender; $.80 + 1.10$ to $.85 + 1.15$. Breeds in the valley of the Lower Rio Grande, south through Central and most of South America, in North America in May.

420. NIGHTHAWK, *Chordelies virginianus*. (Type, Plate VI.) Eggs, 2, elliptical, grayish white, spotted and blotched irregularly with brown, drab, and lilac; $.80 + 1.20$ to $.85 + 1.25$. In Northern and Eastern North America, east of the Great Plains, exclusive of Florida, in May.

420a. WESTERN NIGHTHAWK, *Chordelies virginianus henryi*. Eggs, indistinguishable from those of No. 420. Breeds in Western United States, from the plains to the Pacific coast, in May.

420b. FLORIDA NIGHTHAWK, *Chordelies virginianus chapmani*. Eggs, varying from decidedly elliptical to oval or rounded elliptical, but do not differ in color from those of No. 420. The eggs of the last three numbers are, however, often finely and uniformly spotted over the entire surface; $.75 + 1.10$ to $.80 + 1.15$. Breeds in Florida, and probably as far north as the Carolinas, in May. I have decided to give the form of Nighthawk which occurs in Florida the name used above, for the birds found breeding there are certainly not the Cuban Nighthawk. Four years ago, upon examining some Nighthawks from Florida, I had some doubts as to the identity of this form with the Cuban (See Quarterly Journal Boston Zoölogical Society, July, 1883, p. 44), and a familiarity with the Cuban Nighthawk, acquired since then, together with an opportunity of examining a very large series of birds from Florida, has confirmed these doubts. This new Nighthawk may be briefly described as follows, but a more detailed description may be found in my "Birds of Eastern North America," second revised edition.

Chordelies virginianus chapmani. Colors averaging darker

than those of the Common Nighthawk, with rather less suffusion, otherwise similar, size absolutely less, the Florida subspecies being a smaller and much more slender bird, but the bills are larger, at least proportionately. Average dimensions: length, 8.96; stretch, 22.20; wing, 7.66; tail, 4.16; bill, .25; tarsus, .56.

NOTE to 420b. — Since the above was written, Mr. Sennett has separated the Florida Nighthawk from the Northern bird, giving it the name above used. See "Auk" for April, 1888. Breeds in Florida, probably north to South Carolina, and in Texas.

421. TEXAN NIGHTHAWK, *Chordeiles texensis*. Eggs, rather oval, ashy white, spotted and blotched so thickly with black, umber, and purplish gray as to often completely obscure the ground color; $.85 + 1.10$ to $.75 + 1.18$. Breeds in the southern border of the United States, from Texas to California, south to Central America.

FAMILY XLIII. — MICROPODIDÆ. SWIFTS.

Eggs, oval in form, more than 2 in number, and placed in nests constructed by the birds, in hollow trees, chimneys, in cavities of rocky cliffs, in caves, buildings, and, in some tropical species, beneath leaves of the palms.

422. BLACK SWIFT, *Cypseloides niger*. Eggs, 4 or 5, white, oval; $.68 + .96$ to $.71 + 1.00$. Breeds in the Rocky Mountain region, from Colorado north to British Columbia, and in the West Indies. Nests placed in cavities of buildings, composed of sticks loosely laid together, and lined with leaves.

423. CHIMNEY SWIFT, *Chatura pelagica*. (Type, Plate X.) Eggs, 4 to 6, white, oval, but rather obtuse at the large end; $.75 + .50$ to $.85 + .55$. Breeds in Eastern North America, north to Labrador and the fur countries, west to the plains, south to Georgia. Nests composed of twigs, glued together with a mucilaginous substance that is secreted by glands that are situated in the lower portion of the mouth, and placed, as a rule, in chimneys, but occasionally in hollow trees or in the interior of buildings; eggs deposited in May.

424. VAUX'S SWIFT, *Chaetura vaurii*. Eggs, indistinguishable from those of No. 423, but are perhaps a little smaller; .49 + .71. Breeds on the Pacific slope, from British Columbia southward, in May, nesting in hollow trees.

425. WHITE-THROATED SWIFT, *Micropus melanoleucus*. Eggs, unknown. Breeds in the Western United States, from the Rocky Mountain to the Pacific, south to Central America, nesting in holes of inaccessible cliffs, in May.

FAMILY XLIV.—TROCHILIDÆ. HUMMING-BIRDS.

Eggs, usually 2 in number, elliptical in form, white in color, placed in delicately constructed nests that are fastened to branches of trees or bushes or vines, and in some cases to leaves.

426. RIVOLI HUMMING-BIRD, *Eugenes fulgens*. Eggs and nests, similar to those of No. 428. Breeds in Southern Arizona and through Mexico to Guatemala, in June.

427. BLUE-THROATED HUMMING-BIRD, *Coligena clemencie*. Eggs, unknown. Breeds in Mexico and Southern Arizona.

428. RUBY-THROATED HUMMING-BIRD. (Type, Plate VIII.) *Trochilus colubris*. Eggs, .35 + .50 to .38 + .52. Nests, composed of soft material like the cottony covering from ferns, etc., usually covered with lichens. Breeds throughout Eastern North America, west to the plains, north to the fur countries, in June. Nests in trees, vines, or bushes, and from three to thirty feet from the ground.

429. BLACK-CHINNED HUMMING-BIRD, *Trochilus alexandri*. Eggs, indistinguishable from those of No. 428. Nests composed of a yellowish down, evidently from the catkins of the willow, and placed in willows. Breeds in the Pacific coast region, from California east to Utah and Arizona and southward, in April.

429a. VIOLET-THROATED HUMMING-BIRD, *Trochilus violajugulum*. Eggs, unknown. Perhaps breeds in Southern California. See Jefferys in "Auk," January, 1888, p. 426.

430. COSTA'S HUMMING-BIRD, *Trochilus costæ*. Eggs, .30 + .50 to .32 + .52. Nests composed of yellowish down covered with lichens, and placed in trees. Breeds in Southern California, Arizona, and Western Mexico, in April and May.

431. ANNA'S HUMMING-BIRD, *Trochilus anna*. Eggs, .40 + .60 to .42 + .62. Nests similar to those of No. 428, and are placed in trees and bushes. Breeds in Southern California, Southern Arizona, and Mexico, in March, April, and May.

431a. FLORESI'S HUMMING-BIRD, *Trochilus floresi*. Eggs, unknown. Recorded from California. Breeds southward.

432. BROAD-TAILED HUMMING-BIRD, *Trochilus platycercus*. Eggs, indistinguishable from those of No. 428, and the nest is composed of similar material to that of other western species, and placed in trees. Breeds in the rocky plateau region, south to Guatemala, in June and July.

433. RUFOUS HUMMING-BIRD, *Trochilus rufus*. Eggs, .33 + .45 to .35 + .48. Nests composed of mosses and other soft material, and placed in trees and bushes. Breeds from the Rocky Mountains to the Pacific, north to Sitka, south into Mexico, in May and June.

434. ALLEN'S HUMMING-BIRD, *Trochilus alleni*. Eggs, indistinguishable from those of No. 433. Breeds in the Pacific coast, north to British Columbia, east to Southern Arizona.

435. HELOISE'S HUMMING-BIRD, *Trochilus heloisa*. Eggs, probably unknown. Breeds in Eastern Mexico and Southern Texas.

436. CALLIOPE HUMMING-BIRD, *Trochilus calliope*. Eggs, similar to those of other species, but are very much smaller: .31 + .47. Breeds in the mountains of the Pacific slope, from British Columbia south to Lower California, and east to Montana, Nevada, and New Mexico, in June and July.

437. LUCIFER HUMMING-BIRD, *Trochilus lucifer*. Eggs and nest, unknown. Breeds in Mexico and Southern Arizona.

438. RIEFFER'S HUMMING-BIRD, *Amazilia fuscicaudata*. Eggs and nest, unknown. Breeds in the Lower Rio Grande

Valley in Texas, south through Eastern Mexico to Central America and Northern South America.

439. BUFF-BELLIED HUMMING-BIRD, *Amazilia cerviniventris*. Eggs, unknown. Breeds in the valley of the Lower Rio Grande, south into Eastern Mexico.

440. XANTUS'S HUMMING-BIRD, *Basilinna xantusi*. Eggs; .30 + .45 to .31 + .47. Nests composed of cotton, spider webs, etc., and attached to small twigs. Breeds in Lower California.

441. BROAD-BILLED HUMMING-BIRD, *Iache latirostris*. Eggs, unknown. Breeds in Southern Arizona and Western Mexico.

ORDER XVII.—PASSERES. Perching Birds.

Eggs of varying form and colors, spotted or plain, deposited in nests that are, in the majority of cases, placed in trees or bushes, but often on the ground, and, in some species, in holes.

FAMILY XLV.—TYRANNIDÆ. TYRANT FLYCATCHERS.

Eggs, as a rule, spotted; and, when plain, some specimens among them show indications of markings. Deposited in nests that are, with one or two exceptions, placed at an elevation above the ground.

442. FORK-TAILED FLYCATCHER, *Mitreulus tyrannus*. Eggs, 3 or 4, oval, similar in general markings and color to those of No. 444; .65 + .88 to .68 + .90. Extralimital; breeds in Mexico and southward throughout Central and most of South America. Bird accidental in the United States.

443. SCISSOR-TAILED FLYCATCHER, *Mitreulus forficatus*. Eggs, 3 to 5, varying from rounded oval to oval, similar in color to those of No. 444, but the spots are, as a rule, of a rounded form; .60 + .80 to .75 + .92. Breeds in Texas and Indian Territory, in June and July.

444. KINGBIRD, *Tyrannus tyrannus*. (Type, Plate X.)

Eggs, 4 or 5, varying from rounded oval to oval, pale buff, spotted and blotched irregularly with purplish brown and lilac; $.65 + .85$ to $.75 + 1.00$. Nests, quite roughly constructed of weeds, etc., lined with finer material, placed in trees or bushes. Breeds in Eastern North America, west to the Rocky Mountains; in Florida in May, farther north in June.

445. GRAY KINGBIRD, *Tyrannus dominicensis*. Eggs, 3 or 4, oval, deep salmon, spotted and blotched irregularly with purplish brown and lilac; $.70 + .90$ to $.80 + 1.10$. Nests roughly constructed of twigs, weeds, etc., and lined with finer material. Breeds on the coast of South Carolina, Georgia, and Florida, in the Bahamas, West Indies, Atlantic coast of Central America, and Northern South America, in May.

446. COUCH'S KINGBIRD, *Tyrannus melancholicus couchii*. Eggs, 3 or 4, similar in form and markings to those of No. 444, and the nests are also similar. Breeds in Texas and Arizona, south to Guatemala, in May.

447. ARKANSAS KINGBIRD, *Tyrannus verticalis*. Eggs and nests similar to those of No. 444, and the breeding habits are also similar. Breeds in Western United States, from the plains to the Pacific, south to Guatemala, in May.

448. CASSIN'S KINGBIRD, *Tyrannus vociferans*. Eggs, indistinguishable from those of No. 444, but are, as a rule, perhaps a little smaller. Nests and nesting habits similar. Breeds in Western United States, from the western border of the plains to Southern California, south to Guatemala, in May.

449. DERBY'S FLYCATCHER, *Pitangus derbianus*. Eggs, 3 to 5, oval, buffy white, dotted and spotted, mainly on the larger end, with brown and purplish. The markings are generally longitudinal. Nests placed in trees, very large, dome-shaped, with the entrance on one side, composed of straw, lichens, etc., lined with finer material. Breeds in the valley of the Lower Rio Grande in Texas, south to Northern South America.

450. GIRAUD'S FLYCATCHER, *Myiozetetes texensis*. Eggs, 3 or 4, oblong oval, varying from ashy white to buff, spotted and

blotched quite coarsely with reddish brown, lilac, and lavender; $.60 + .95$ to $.65 + 1.00$. Breeds in Central and South America, thus is extralimital; bird accidental in Texas.

451. SULPHUR-BELLIED FLYCATCHER, *Myiodynastes luteiventris*. Eggs, unknown. Breeds in Southern Arizona, south to Costa Rica, in May.

452. CRESTED FLYCATCHER, *Myiarchus crinitus*. (Type, Plate X.) Eggs, 4 to 6, rather elliptical, buff, streaked and lined as if done with a pen, the markings generally being placed longitudinally, with brown and lilac; $.65 + .80$ to $.70 + .85$. Nests composed of weeds, grass, etc., rather loosely arranged in a hole of a tree; the cast-off skin of a snake is also frequently found in the nest. Breeds in Eastern United States and Southern Canada, west to the plains, in June.

453. MEXICAN CRESTED FLYCATCHER, *Myiarchus mexicanus*. Eggs, indistinguishable in form and color from those of No. 452, but are larger; $.70 + 1.00$ to $.75 + 1.05$. Breeds in the valley of the Lower Rio Grande, Texas, south into Western Mexico.

453a. ARIZONA CRESTED FLYCATCHER, *Myiarchus mexicanus magister*. Eggs, indistinguishable from those of No. 453; both nest in holes, in June.

454. ASH-THROATED FLYCATCHER, *Myiarchus cinerescens*. Eggs, indistinguishable from those of No. 453, and the nesting habits are similar. Breeds in Western United States, north to Oregon, Nevada, Utah, and Colorado, in May.

455. LAWRENCE'S FLYCATCHER, *Myiarchus lawrencei*. Eggs, similar to those of No. 454, but are a little smaller. Extralimital. Breeds in Eastern Mexico; bird accidental in Texas.

455a. OLIVACEOUS FLYCATCHER, *Myiarchus lawrencei olivaceus*. Eggs, similar to those of No. 454, but are smaller. Breeds in Arizona and Western Mexico, in May.

456. PHOEBE, *Sayornis phoebe*. Eggs, 4 to 6, short oval, creamy white, often dotted with reddish brown; $.50 + .75$ to $.60 + .80$. Nests composed of mud, grass, and rootlets,

lined with fine grass, rootlets, and hairs; placed in buildings, under bridges, rocks, the upturned roots of fallen trees, or in other sheltered situations. Breeds in Eastern North America, from the British Provinces south to the Carolinas, in May, and a second time in June.

457. SAY'S PHOEBE, *Sayornis saya*. Eggs, indistinguishable from those of No. 456, and the nests and nesting habits are similar. Breeds in Western United States, from the plains to the Pacific, in May.

458. BLACK PHOEBE, *Sayornis nigricans*. Eggs, indistinguishable from those of No. 456, and the nesting habits are similar. Breeds in Southwestern United States, from Texas through Southern New Mexico and Arizona, to California, and northward along the coast to Oregon, in May.

459. OLIVE-SIDED FLYCATCHER, *Contopus borealis*. Eggs, 3 or 4, short oval, salmon-colored, spotted and blotched with yellowish ash, brown, umber, and lilac, usually forming a ring around the larger end; $.60 + .85$ to $.62 + .90$. Nests composed of sticks and weeds, lined with fine rootlets, placed in trees. Breeds throughout North America, on the east side, from Massachusetts northward, and to the westward, south along the mountain ranges, in June.

460. COVEY'S FLYCATCHER, *Contopus pertinax*. Eggs, unknown. Breeds in Southern Arizona, Mexico, and Guatemala.

461. WOOD PEWEE, *Contopus virens*. (Type, Plate IX.) Eggs, 3, rarely 4, short oval, creamy buff, spotted and blotched, usually around the larger end, with brown, umber, and lilac; $.75 + .50$ to $.75 + .55$. Nests composed of grass and weeds, and lined with finer material, and the whole structure is covered smoothly with lichens, secured by cobwebs; placed in trees; usually saddled on the top of a large branch. Breeds in Eastern North America, west to the plains, from Canada to Florida, in June.

462. WESTERN WOOD PEWEE, *Contopus richardsonii*. Eggs, 3, indistinguishable from those of No. 461, but the nests

are said to be without the elaborate lichen covering. Breeds in Western United States, from the plains to the Pacific, in June.

463. YELLOW-BELLIED FLYCATCHER, *Empidonax flaviventris*. Eggs, 4, rounded oval, creamy white, spotted with light reddish brown; $.53 + .85$ to $.55 + .90$. Nests placed beneath the roots of upturned trees, or in bunches of moss on the ground; composed of moss, lined with rootlets, pine needles, and grass. Breeds in Eastern North America, from the Northern States northward, in June.

464. BAIRD'S FLYCATCHER, *Empidonax difficilis*. Eggs, 3 or 4, oval, creamy white, spotted and blotched irregularly with reddish brown; $.55 + .70$ to $.58 + .73$. The nests and nesting habits are probably not dissimilar to those of No. 463. Breeds in Western United States, from the plains to the Pacific.

464a. SAINT LUCAS FLYCATCHER, *Empidonax cineritius*. Eggs, unknown. Breeds in Lower California. See Brewster, in "Auk" for January, 1888, page 90.

464b. GRAY FLYCATCHER, *Empidonax griseus*. Eggs, unknown. Breeds in Lower California. See Brewster, in "Auk" for April, 1889, page 87.

465. ACADIAN FLYCATCHER, *Empidonax acadicus*. Eggs, 3 or 4, oval, creamy white, spotted and blotched irregularly with reddish brown; $.50 + .75$ to $.55 + .78$. Nests composed of sticks and moss, lined with the dried blossoms of the beech; placed in bushes or on trees. Breeds in Eastern United States, west to the plains, from the latitude of New York south to Georgia, in June.

466. LITTLE FLYCATCHER, *Empidonax pusillus*. Eggs, 3 or 4, oval, creamy white, spotted and blotched irregularly with dark reddish brown; $.50 + .75$ to $.55 + .78$. Nests rather flat, composed of sticks and weeds, lined with dried grass; placed in trees. Breeds in Western North America, from the western border of the plains to the Pacific, north to the fur countries, in June.

466a. TRAILL'S FLYCATCHER, *Empidonax pusillus trailli*. Eggs, indistinguishable from those of No. 466. Nests also similar, but are, as a rule, placed in bushes. Breeds in Eastern North America, from Northern New England and Northern New York, Ohio, Southern Illinois, and Missouri, northward, in June.

467. LEAST FLYCATCHER, *Empidonax minimus*. (Type, Plate IX.) Eggs, 3 or 4, varying from short oval to rounded oval, yellowish white, usually unspotted, but rarely dotted faintly with reddish brown; $.50 + .60$ to $.52 + .65$. Nests placed in trees, usually in open situations; composed of dried grass, woody fibres, cotton, etc., neatly woven together, lined with horse-hair and feathers. Breeds in Eastern North America, from the Middle States and New England northward, in June.

468. HAMMOND'S FLYCATCHER, *Empidonax hammondi*. Eggs, 3 or 4, short oval, creamy white, spotted and blotched, usually on the larger end, with reddish brown; $.52 + .68$ to $.70 + .50$. Nests placed in trees, composed of sticks and bark, lined with hair and feathers. Breeds in Western North America, from the western border of the plains, westward, north to the Lesser Slave Lake, in June.

469. WRIGHT'S FLYCATCHER, *Empidonax obscurus*. Eggs, 3 or 4, rounded oval, creamy or yellowish white, usually unspotted; $.60 + .73$ to $.62 + .75$. Nests placed in trees; composed of strips of bark and the hempen fibres of various plants, lined with fine material of the same description. Breeds in Western United States, north to Oregon and Montana, in June.

470. FULVOUS FLYCATCHER, *Empidonax fulvifrons*. Eggs, unknown. Extralimital. Breeds, probably, in Northeastern Mexico; bird accidental in Texas.

470a. BUFF-BREASTED FLYCATCHER, *Empidonax fulvifrons pygmaeus*. Eggs are, I think, unknown. Breeds in Western New Mexico and Southern Arizona, southward into Mexico.

471. VERMILION FLYCATCHER, *Pyrocephalus rubeneus mexicanus*. Eggs, 3 or 4, short oval, creamy white, spotted and blotched, usually in a ring around the larger end, with rounded markings of brown and yellowish brown and pale lilac; .70 + .50 to .73 + .53. Nests composed outwardly of small twigs, lined with hairs and a few feathers, and the whole outer portion is often coated with lichens. Breeds in Southern Arizona and the valley of the Lower Rio Grande, Texas, southward.

472. BEARDLESS FLYCATCHER, *Ornithion imberbe*. Eggs, unknown. Breeds in the valley of the Lower Rio Grande, Texas, south into Eastern Mexico.

472a. RIDGWAY'S FLYCATCHER, *Ornithion imberbe ridgwayi*. Eggs, unknown. Breeds in Southern Arizona and Western Mexico, in May.

FAMILY XLVI. — ALAUDIDÆ. LARKS.

Eggs, spotted, usually so profusely as to obscure the ground color; placed in nests composed of grass and other similar material lined with soft grasses and placed on the ground.

473. SKYLARK, *Alauda arvensis*. Eggs, 4 or 5, oval, grayish white, sprinkled and blotched profusely with ashy brown; .70 + .93 to .72 + .95. Extralimital; breeds in Europe and Asia; bird accidental in Greenland and the Bermudas.

474. HORNED LARK, *Otocoris alpestris*. Eggs, 4 or 5, oval, varying from purplish white to dark gray, profusely spotted, usually finely, but occasionally coarsely, with grayish or olive brown; .70 + .93 to .75 + .95. Breeds in Northeastern North America, from Labrador northward, in Greenland, and the northern parts of the Old World, in May.

474a. PALLID HORNED LARK, *Otocoris alpestris leucolema*. Eggs, indistinguishable from those of No. 474. Breeds in the interior of British America and Alaska.

474b. PRAIRIE HORNED LARK, *Otocoris alpestris praticola*. Eggs, indistinguishable from those of No. 474. Breeds in

the Upper Mississippi Valley and Great Lake region, east to New York, in April.

474c. DESERT HORNED LARK, *Otocoris alpestris arcticola*. Eggs, indistinguishable in color from those of No. 474, but are a little smaller; $.62 + .85$. Breeds in the Rocky Mountain region of the Great Basin of the United States, in April.

474d. TEXAN HORNED LARK, *Otocoris alpestris giraudi*. Eggs, slightly smaller than those of No. 474 ($.60 + .83$), but otherwise similar. Breeds in Eastern and Southeastern Texas, in March.

474e. MEXICAN HORNED LARK, *Otocoris alpestris chrysolæma*. Eggs, in color similar to those of No. 474, but are smaller; $.63 + .85$. Breeds in Southern Arizona and Southern New Mexico, south into Mexico, in March.

474f. RUDDY SHORE LARK, *Otocoris alpestris rubea*. Eggs, smaller than those of No. 474 ($.59 + .80$), but otherwise similar. Breeds in California, in March.

474g. STREAKED HORNED LARK, *Otocoris alpestris strigata*. Eggs, indistinguishable from those of No. 474. Breeds in the coast region of Washington Territory, Oregon, and British Columbia.

FAMILY XLVII. — CORVIDÆ. CROWS, JAYS, MAGPIES, ETC.

Eggs, usually greenish or brownish green, handsomely spotted. Nests made of sticks and other coarse material, and placed in trees.

475. AMERICAN MAGPIE, *Pica pica hudsonica*. Eggs, 6 to 9, oval, grayish or yellowish white, spotted, blotched, and dotted with purplish brown, the spots sometimes becoming confluent. Nests, globular, very large, made of sticks and other coarse material, and placed in trees; $.61 + 1.00$ to $.92 + 1.26$. Breeds in Northern and Western North America, in May.

476. YELLOW-BILLED MAGPIE, *Pica nuttalli*. Eggs are perhaps a little smaller, as a rule, than those of No. 475 ($.85 +$

1.25), otherwise indistinguishable. Breeds in California, in May.

477. BLUE JAY, *Cyanocitta cristata*. Eggs, 4 or 5, oval or elliptical, varying from yellowish brown to grayish green, spotted and blotched irregularly with drab, occasionally dotted with black; $.55 + 1.05$ to $.90 + 1.20$. Nests placed in trees composed of sticks and weeds, lined with strips of bark and rootlets. Breeds in Eastern North America, from the fur countries to Georgia, west to Eastern Texas and the plains.

477a. FLORIDA BLUE JAY, *Cyanocitta cristata florincola*. Eggs, smaller than those of No. 477, but are otherwise similar. Breeds in Florida, in April.

478. STELLER'S JAY, *Cyanocitta stelleri*. Eggs, 4 to 7, oval, pale green, spotted and blotched with greenish brown and violet; $.90 + 1.20$ to $.92 + 1.30$. Nests composed of twigs, lichens, and fir fronds, lined with deer's hair. Breeds in the neighborhood of the Pacific coast of North America, from the Columbia River to Sitka, and northern coast range in California, in May.

478a. BLUE-FRONTED JAY, *Cyanocitta stelleri frontalis*. Eggs, indistinguishable from those of No. 478, and the nests and nesting habits are similar. Breeds in the Sierra Nevada range of California and Western Nevada, from Fort Crook to Fort Tejon, in April and May.

478b. LONG-CRESTED JAY, *Cyanocitta stelleri macrolopha*. Eggs, indistinguishable from those of No. 478, and the nests and nesting habits are similar. Breeds in the Central Rocky Mountains, from British America to New Mexico and Southern Arizona, in April and May.

478c. BLACK-HEADED JAY, *Cyanocitta stelleri annectens*. Eggs, unknown. Breeds in the Northern Rocky Mountains, south to the Wasatch range, west to Eastern Oregon and Washington Territory.

478d. NORTHWEST COAST JAY, *Cyanocitta stelleri litoralis*. Eggs, unknown, but are probably indistinguishable from those

of No. 478. Breeds on the northwest coast of North America, from Vancouver's Island northward. Described by Maynard in the "Ornithologist and Oölogist" for April, 1889.

479. FLORIDA JAY, *Aphelocoma floridana*. Eggs, 3 or 4, varying from oval to rounded oval, rather bright green, spotted and blotched irregularly, but usually more thickly on the larger end, with reddish brown and lilac; $.75 + 1.00$ to $.80 + 1.10$. Breeds in Florida, from St. Augustine south to the lower end of Merritt's Island, and from Tampa Bay north to Cedar Keys, but in this area restricted to the scrub lands, in April and May. Nests composed of sticks lined with the fibrous strings that grow at the base of the saw-palmetto fronds, and placed in bushes.

480. WOODHOUSE'S JAY, *Aphlocoma woodhousei*. Eggs, 4 or 5, quite oval, pale bluish green, marked with reddish brown spots, more thickly at the larger end; $.80 + 1.06$ to $.82 + 1.08$. Nests composed of twigs lined with horse-hair, placed in bushes. Breeds in the middle province of the United States, north to Eastern Oregon, Idaho, Montana, and Wyoming, east to Colorado and New Mexico, west to Nevada and Arizona, in May.

481. CALIFORNIA JAY, *Aphlocoma californica*. Eggs, 4 or 5, oval, rather bright green, spotted and blotched with purplish brown and umber; $.80 + 1.05$ to $.85 + 1.20$. Nests placed in trees and bushes, composed of twigs lined with grass and horse-hair. Breeds in the Pacific coast region, including both slopes of the Sierra Nevada, from the Columbia River to Cape St. Lucas, in May.

481a. XANTHUS'S JAY, *Aphlocoma californica hypoleuca*. Eggs, unknown. Lower California, in the vicinity of Cape St. Lucas. See Ridgway, in "Manual of North American Birds," 1887.

481b. SANTA CRUZ JAY, *Aphlocoma insularis*. Eggs, unknown. Breeds on Santa Cruz Island, California. Described by Mr. H. A. Henshaw in the "Auk," October, 1886.

482. ARIZONA JAY, *Aphelocoma sieberii arizonæ*. Eggs, 3 or 4, oval, pale greenish blue, without markings, thus closely resembles a robin's egg; $.80 + 1.10$ to $.82 + 1.13$. Nests placed in bushes, composed of twigs and rootlets lined with grasses. Breeds in Arizona and Southern New Mexico, in April and May.

483. GREEN JAY, *Xanthoura luxuosa*. Eggs, 3 or 4, oval, grayish white, thickly spotted with brown and pale lilac; $.80 + 1.01$ to $.82 + 1.11$. Nests placed in trees, composed of twigs and rootlets, flat and thin in structure. Breeds in the valley of the Lower Rio Grande, Texas, and southward into Eastern Mexico.

484. CANADA JAY, *Perisoreus canadensis*. Eggs, 4, 5, or 6, oval, pale gray, spotted and blotched with grayish brown and slate; $.55 + 1.05$ to $.90 + 1.25$. Nests placed in trees, composed of sticks, weeds, and grass, lined with fine roots and feathers. Breeds in Northern New England, Michigan, and Canada, northward to Arctic America.

484a. ROCKY MOUNTAIN JAY, *Perisoreus canadensis capitalis*. Eggs, probably indistinguishable from those of No. 484. Breeds in the Rocky Mountain region of the United States, south to New Mexico and Arizona.

484b. ALASKAN JAY, *Perisoreus canadensis fumifrons*. Eggs, indistinguishable from those of No. 484. Breeds in Alaska.

484c. LABRADOR JAY, *Perisoreus canadensis nigricapillus*. Eggs, indistinguishable from those of No. 484. Breeds in the coast region of Labrador, north to Ungava Bay.

485. OREGON JAY, *Perisoreus obscurus*. Eggs, similar to those of No. 484. Breeds on the Northwest coast, from the Sierra Nevada, in California, to British Columbia.

486. MEXICAN RAVEN, *Corvus corac sinuatus*. Eggs, similar to those of No. 486a. Breeds in Western United States, south to Guatemala. See Ridgway, in "Manual of North American Birds," 1887.

486a. NORTHERN RAVEN, *Corvus corax principalis*. Eggs, 4 or 5, oval or rounded oval, dark green, spotted and blotched irregularly with grayish and black; $1.35 + 1.70$ to $1.45 + 1.80$. Nests composed of sticks, lined with coarse grass and sea-weed, usually placed on cliffs, but occasionally on trees. Breeds throughout the northern portion of the continent of North America, from British America, and southwest; but local east of the Mississippi River, Maine, mountains of New Hampshire and Vermont and Western Massachusetts, Northern New York and the mountains southward through Pennsylvania and Virginia; nesting to the southward in February, and in New England and northward in March and April.

487. WHITE-NECKED RAVEN, *Corvus cryptoleucus*. Eggs, 4 or 5, oval, varying from pale grayish to deep green, spotted and blotched with purplish and brown; $1.25 + 1.75$ to $1.50 + 1.80$. Nests composed of sticks, lined with weeds and grass, and placed on cliffs. Breeds in the southern border of the United States, from Texas to Southern California north to Colorado and south into Mexico, in June.

488. AMERICAN CROW, *Corvus americanus*. (Type, Plate VII.) Eggs, 3 to 5, oval to rounded oval, varying from pale bluish green to deep green, spotted and blotched, finely or coarsely, with purplish brown, lilac, and black; $1.08 + 1.55$ to $1.20 + 1.60$. Nests composed of sticks, lined with strips of bark, grass, hair, etc. Breeds throughout North America, from the fur countries to Mexico, excepting Florida, in the South in April, in the middle districts in May, and in the extreme North in June.

488a. FLORIDA CROW, *Corvus americanus floridanus*. Eggs, indistinguishable from those of No. 488. Breeds in Florida, in April.

488b. CALIFORNIA CROW, *Corvus americana heperis*. Eggs, similar to those of No. 488. Breeds in Western United States, north to Washington Territory, Idaho, and Montana, south to New Mexico, and east to the Rocky Mountains. See Ridgway, in "Manual of North American Birds."

489. NORTHWEST CROW, *Corvus caurinus*. Eggs, indistinguishable from those of No. 488. Breeds on the northwest coast, from California to Sitka, in April and May.

490. FISH CROW, *Corvus ossifragus*. Eggs, 5 or 6, indistinguishable in form and color from those of No. 488, but are smaller; $1.05 + 1.50$ to $1.10 + 1.52$. Nests placed in trees. Breeds on the Atlantic coast, from Long Island to Florida, in April and May.

491. CLARK'S NUTCRACKER, *Picicorvus columbianus*. Eggs, 2 or 3, oval, grayish green, sparingly sprinkled with grayish; $.90 + 1.20$ to $.95 + 1.22$. Nests composed of sticks and fibrous plants and grass, lined with fine bark. Placed in trees. Breeds in Western North America, from Arizona to Sitka, and east to the plains, in April.

492. PIÑON JAY, *Cyanocephalus cyanocephalus*. Eggs, 3 or 4, oval, greenish white, profusely spotted everywhere with pale brown and purple; $.87 + 1.23$ to $.88 + 1.27$. Nests placed in trees, composed of sticks and bark, lined with finer bark. Breeds in the Rocky Mountain region, westward to the Cascade range, and Sierra Nevada, and from Mexico north into British America, in March and April.

FAMILY XLVIII. — STURNIDÆ. STARLINGS.

Eggs, usually oval in form, seldom plain, but generally handsomely spotted, and often elaborately lined. Nests, as a rule, in American species, placed in trees, but occasionally on the ground.

493. STARLING, *Sturnus vulgaris*. Eggs, 4 or 5, oval, pale blue, unspotted: $.86 + 1.20$ to $.88 + 1.25$. Nests composed of twigs, grass, and similar material, placed in hollow trees, in holes of cliffs, beneath the eaves of buildings, in church steeples, etc. Extralimital. Breeds in Europe and Northern Asia; bird accidental in Greenland.

494. BOBOLINK, *Dolichonyx orizivorus*. (Type, Plate IX.) Eggs, 4 to 6, oval, ashy white or drab, spotted and blotched,

generally coarsely, with reddish brown and umber; .65 + .70 to .68 + .78. Known from those of some of the sparrows, which they resemble, by the coarser markings. Nests composed of dried grass, and placed on the ground. Breeds in Eastern North America from the plains, Middle States, north to Canada, in June.

494a. WESTERN BOBOLINK, *Dolichonyx orizyvorus albinucha*. Eggs, indistinguishable from those of No. 494. Breeds in Dakota westward to Utah and Nevada, north to Manitoba.

495. COWBIRD, *Molothrus ater*. Eggs, rounded oval, white, spotted and blotched, often so profusely as to obscure the ground color; placed in the nests of other birds; .65 + .70 to .68 + .75. Breeds throughout the United States, from the Northern Gulf States into Southern British America, in May and June.

495a. DWARF COWBIRD, *Molothrus ater obscurus*. Eggs, similar to those of No. 495, but they are not as thickly spotted, as a rule, and are smaller; .33 + .60 to .55 + .70. Breeds in Southern United States, from Texas to Arizona and Lower California, south into Mexico, placing its eggs in the nests of other birds. April and May.

496. BRONZED COWBIRD, *Calliothrus robustus*. Eggs, varying from oval to elliptical, greenish white, unspotted; .65 + .82 to .75 + .95. Breeds in the valley of the Lower Rio Grande, Texas, and southward, placing its eggs in the nests of other birds, in April and May.

497. YELLOW-HEADED BLACKBIRD, *Xanthocephalus xanthocephalus*. Eggs, 5 or 6, oblong oval, pale green, profusely spotted with yellowish brown, with an occasional line of umber on the larger end; .65 + 1.00 to .70 + 1.05. Nests placed in reeds, composed of grass neatly woven together, in a cup-shaped structure. Breeds in Western North America, from Wisconsin, Illinois, and Texas to the Pacific coast, in May.

498. RED-WINGED BLACKBIRD, *Agelaius phoeniceus*. Eggs, 3 to 5 in the north, 2 or 3 in the south, oval, pale blue, spotted,

dotted, and lined with reddish brown and umber, usually more thickly on the larger end, with a few paler shell markings scattered over the surface; $.65 + .90$ to $.75 + 1.07$. Nests placed in trees, bushes, or on tussocks of grass, cup-like, composed of coarse grass and weeds, lined with finer material. Breeds throughout North America, from Great Slave Lake southward, in April and May.

498a. SONORAN BLACKBIRD, *Agelaius phoeniceus sonoriensis*. Eggs, similar to those of No. 498. Breeds in Northern New Mexico and the lower Colorado valley, in Southern California and Arizona south to Mazatlan. See Ridgway in "Manual of North American Birds," 1887.

498b. BAHAMAN RED-WINGED BLACKBIRD, *Agelaius phoeniceus bryanti*. Eggs, 2 and 3, similar to those of No. 498. Nests placed in grass tops or in holes of trees. Breeds in the Bahamas, Miami, Southern Florida, and on the Florida Keys, in April. See Ridgway, "Manual of North American Birds," 1887, and Maynard in new edition of "Birds of Eastern North America," 1889.

499. BICOLORED BLACKBIRD, *Agelaius gubernator*. Eggs, indistinguishable from those of No. 498, and the nests and nesting habits are similar. Breeds in the Pacific province of the United States, south into Western Mexico, in April and May.

500. TRICOLORED BLACKBIRD, *Agelaius tricolor*. Eggs, 3 or 4, on the average indistinguishable from those of No. 498, but some specimens appear to be of a brighter blue, and the nests and nesting habits are similar. Breeds in the Pacific province of the United States, from the Columbia River southward, in April.

501. MEADOW-LARK, *Sturnella magna*. (Type, Plate VIII.) Eggs, 4 to 6, oval, white, spotted and blotched with reddish brown and lilac, more thickly on the larger end; $.70 + 1.05$ to $.80 + 1.15$. Nests composed of grass, etc., placed on the ground and often dome-shaped. Breeds throughout Eastern

North America and Southern Canada to the plains, in April in Florida, in May in the Middle States, and in June in New England and Canada.

501a. MEXICAN MEADOW-LARK, *Sturnella magna mexicana*. Eggs, indistinguishable from those of No. 501, and the nesting habits are similar. Breeds in the valley of the Lower Rio Grande, Texas, and Arizona, southward.

501b. WESTERN MEADOW-LARK, *Sturnella magna neglecta*. Eggs, indistinguishable from those of No. 501, and the nests and nesting habits are similar. Breeds in Western United States, from Wisconsin, Illinois, Iowa, Texas, west to the Pacific coast, in April and May.

502. TROOPIAL, *Icterus icterus*. Eggs, reddish drab, spotted, blotched, and lined with purplish brown; $.85 + 1.00$ to $.88 + 1.10$. Extralimital; breeds in the West Indies, where it has been introduced, and in Northern South America; accidental at Charleston, South Carolina.

503. AUDUBON'S ORIOLE, *Icterus auduboni*. Eggs, 4 or 5, oval, pale purplish, spotted and dotted, ill defined markings of purple, and with dots and zigzag lines of dark purple, dark brown, and black; $.70 + .90$ to $.72 + .92$. Breeds in the valley of the Lower Rio Grande, Texas, and southward, in May.

504. SCOTT'S ORIOLE, *Icterus parisorum*. Eggs, 3 or 4, oblong oval, bluish white, spotted and dotted with purplish brown and black; $.62 + .88$ to $.65 + .90$. Nests open, scarcely pendulous, composed of moss and grass woven rather loosely together. Breeds along the southern border of the United States, from Texas to Lower California, and southward, in May.

505. HOODED ORIOLE, *Icterus cucullatus*. Eggs, 3 or 4, oval, white, spotted, blotched and marbled, and marked with dashes and zigzag lines of purple, brown, and black, usually more thickly on the larger end. Nests, rather open, yet pendulous, composed of moss, grass, etc., woven firmly together, placed in

trees. Breeds in the valley of the Lower Rio Grande, Texas, and southward through Eastern and Southern Mexico, in May.

505a. ARIZONA HOODED ORIOLE, *Icterus cucullatus nelsoni*. Eggs, indistinguishable from those of No. 505, and the nests and nesting habits are similar. Breeds in Southern Arizona, west to San Diego, and south to Mazatlan and Cape St. Lucas, in May.

506. ORCHARD ORIOLE, *Icterus spurius*. Eggs, 4 to 6, oval, spotted, dotted, and sometimes lined with umber and lilac; $.60 + .80$ to $.65 + .85$. Nests open, but somewhat purse-shaped, composed of fine, tough grasses woven firmly together and placed in trees. Breeds throughout the United States, west to the plains, excepting Florida and the Northern New England States, in May and June.

507. BALTIMORE ORIOLE, *Icterus galbula*. Eggs, 4 to 6, oval, pale blue, spotted, dotted, and lined with umber, usually more thickly on the larger end; $.60 + .90$ to $.72 + 1.20$. Nests decidedly purse-shaped, composed of strips of fibrous bark, horse-hair, strings, rags, or other available material, woven firmly and neatly together. Breeds in Eastern United States, west nearly to the Rocky Mountains, north of Florida, in June.

508. BULLOCK'S ORIOLE, *Icterus bullocki*. Eggs, indistinguishable from those of No. 507, and the nest and nesting habits are similar. Breeds in Western United States, from the eastern base of the Rocky Mountains west to the Pacific coast, in June.

509. RUSTY BLACKBIRD, *Scolecophagus carolinus*. Eggs, 4 or 5, oval, varying from pale green to rufous brown, spotted, dotted, and lined with reddish brown and umber, often so thickly as to obscure the ground color; $.71 + 1.00$ to $.75 + 1.05$. Nests placed in bushes, composed of grass, weeds, and mud, woven into a compact structure. Breeds in Eastern North America, from Northern New England northward, in May.

510. BREWER'S BLACKBIRD, *Scolecophagus cyanocephalus*. (Type, Plate VIII.) Eggs, 4 to 7, indistinguishable from

those of No. 509, and the nests are similar, but are placed in reeds. Breeds in Western North America, from the plains to the Pacific, north to the Saskatchewan region, in May.

511. PURPLE GRACKLE, *Quiscalus quiscula*. Eggs, 4 or 5, oval, pale blue, spotted, blotched, and lined with brown and umber, but the lines are not well defined on the edges; $.86 + 1.09$ to $.90 + 1.30$. Nests, bulky structures, composed of grass, weeds, and mud, lined with grass placed in trees. Breeds in the Atlantic States, from Florida to Long Island, in May.

511a. FLORIDA GRACKLE, *Quiscalus quiscula aglaeus*. Eggs, 3 to 5, generally similar to those of No. 511, but are, perhaps, smaller. Nests placed in palmetto trees at the base of the fronds. Breeds in Florida, in April.

511b. BRONZED GRACKLE, *Quiscalus quiscula æneus*. Eggs, 3 to 5, indistinguishable from those of No. 511, and the nests and nesting habits are similar. Breeds from the Alleghanies and New England west to the Rocky Mountains, and north to Hudson's Bay, in May.

512. GREAT-TAILED GRACKLE, *Quiscalus macrourus*. Eggs, 3 or 4, oval, pale blue, marked with clearly defined lines and spots of umber and brown, and this distinguishes them from those of the last three numbers. Nests in grass and reeds; they are large, compact structures, composed of grass firmly woven together. Breeds in Eastern Texas, southward, in April.

513. BOAT-TAILED GRACKLE, *Quiscalus major*. (Type, Plate VIII.) Eggs, 3 or 4, oval, indistinguishable from those of No. 512, and the nests and nesting habits are similar. Breeds in the coast region of the South Atlantic and Gulf States, from North Carolina to Texas, in April and May.

FAMILY XLIX.—FRINGILLIDÆ. FINCHES, SPARROWS,
ETC.

Eggs, variously colored, but are, as a rule, spotted. Nests, in the majority of cases, placed in trees or at an elevation above the ground, but frequently on the ground.

514. EVENING GROSBEAK, *Coccothraustes vespertina*. Eggs, unknown. Breeds in Western North America in the mountains from Arizona north into the fur countries.

515. PINE GROSBEAK, *Pinicola enucleator*. Eggs, 3 or 4, oval, greenish drab, spotted and blotched with pale purplish brown, blackish brown, and dark purple; $.70 + 1.02$ to $.75 + 1.05$. The large size and green color are distinguishing characteristics. Breeds in the far north of the Northern Hemisphere.

516. CASSIN'S BULFINCH, *Pyrrhula cassini*. Eggs, probably not unlike those of the common bulfinch, which are pale blue with violet spots. Extralimital; breeds in Siberia. A single bird has been taken in Alaska.

517. PURPLE FINCH, *Carpodacus purpureus*. Eggs, 4 or 5, rarely 6, bright greenish blue, spotted and scrawled with lilac and black; $.53 + .72$ to $.62 + .80$. Resemble those of No. 560, but larger. Nests placed in trees, often in cedars, composed of weed stalks and twigs, lined with rootlets, grass, and hair. Breeds in Eastern North America, west to the plains, from the Middle States northward, in May and June; and often a second set is laid in July.

517a. CALIFORNIA PURPLE FINCH, *Carpodacus purpureus californicus*. Eggs and nests scarcely different from those of No. 517; the spottings on the eggs, however, frequently form a ring around the larger end. Breeds in the Pacific coast region, from British Columbia south to Southern California, in May.

518. CASSIN'S PURPLE FINCH, *Carpodacus cassini*. Eggs, 4 or 5, pointed oval, bluish green, spotted and dotted on the larger end with slate-lilac and blackish brown; $.60 + .86$. Nests not dissimilar to those of No. 517. Breeds in Western United States, from the eastern base of the Rocky Mountains to the Pacific coast, in May.

519. HOUSE FINCH, *Carpodacus mexicanus frontalis*. (Type, Plate VIII.) Eggs, 4 to 6, oblong oval, pale bluish green, sparingly dotted and lined with dark brown and black;

.60 + .80 to .65 + .85. Nests placed in trees and bushes, composed of twigs, grass, and weeds, lined with soft grass and hair. Breeds in the middle province of the United States, in May.

519a. SAINT LUCAS HOUSE FINCH, *Carpodacus mexicanus ruberrimus*. Eggs, unknown, but probably indistinguishable from those of No. 519. Breeds in Lower California and adjacent parts of Sonora. Described by Ridgway in "Manual of North American Birds," 1887, 391.

520. GUADALUPE HOUSE FINCH, *Carpodacus amplus*. Eggs, probably not to be distinguished from those of No. 519. Breeds on Guadalupe Island, Lower California.

521. AMERICAN CROSSBILL, *Loxia curvirostra minor*. Eggs, 4 or 5, pale bluish or greenish white, sparingly spotted and scrawled with dark brown and lilac; .52 + .73 to .56 + .75. The sparse markings distinguish them from those of No. 522. Nests placed in trees, composed of twigs, strips of bark, lined with moss. Breeds in Northern North America, south to Massachusetts and along the Alleghanies, in March, April, and August.

521a. MEXICAN CROSSBILL, *Loxia curvirostra stricklandi*. Eggs, probably indistinguishable from those of No. 521. Breeds in Colorado, Southern Arizona, and the highlands of Mexico.

522. WHITE-WINGED CROSSBILL, *Loxia leucoptera*. Eggs, 4 or 5, oval, pale blue, thickly dotted on the larger end with black and ashy lilac; .56 + .80 to .58 + .82. Nests composed of twigs, and lined with fine shreds of inner bark and hair. Breeds in the northern parts of North America, south to Canada, in April and August.

523. ALEUTIAN LEUCOSTICTE, *Leucosticte griseonucha*. Eggs, 4 or 5, oval, grayish white; .70 + .95 to .72 + .97. Nests composed of a little grass, placed on the ground. Breeds in the Aleutian Islands, in May.

524. GRAY-CROWNED LEUCOSTICTE, *Leucosticte tephrocotis*. Eggs, probably not dissimilar to those of No. 523, but I have

never seen a description of them. Breeds in the interior region of British America.

524a. HEPBURN'S LEUCOSTICTE, *Leucosticte tephrocotis littoralis*. Eggs, unknown, but probably not dissimilar to those of No. 523. Breeds probably in the interior mountainous regions of British Columbia.

525. BLACK LEUCOSTICTE, *Leucosticte atrata*. Eggs and breeding range, unknown. The birds occur in the Rocky Mountains of Colorado and Wyoming, in winter.

526. BROWN-CAPPED LEUCOSTICTE, *Leucosticte australis*. Eggs of all the Leucostictes are probably indistinguishable, and the nesting habits are doubtless similar. Breeds in the mountains of Colorado.

527. GREENLAND REDPOLL, *Acanthis hornemannii*. Eggs, 4 or 5, oval or oblong oval, greenish white, sparingly dotted with reddish brown; $.73 + .58$ to $.75 + .60$. All the redpoll's eggs are distinguished by the greenish color and fine dotting. Nests placed in trees or bushes, composed of grass and moss, lined with the down from willow catkins. Breeds in Greenland and Eastern Arctic America, in June.

527a. HOARY REDPOLL, *Acanthis hornemannii exilipes*. Eggs, indistinguishable from those of No. 527, and the nests and nesting habits are similar. Breeds in Arctic America and Northeastern Asia.

528. REDPOLL, *Acanthis linaria*. Eggs, indistinguishable from those of No. 527, but are smaller; $.50 + .65$ to $.53 + .68$, and the nests and nesting habits are similar. Breeds in the northern portion of the Northern Hemisphere in North America, from the British Provinces northward, in May.

528a. HOLBELL'S REDPOLL, *Acanthis linaria holboellii*. Eggs, indistinguishable from those of No. 527. Breeds in the northern portions of the Northern Hemisphere, near the sea-coast.

528b. GREATER REDPOLL, *Acanthis linaria rostrata*. Eggs, indistinguishable from those of No. 527. Breeds in Greenland and Northeastern North America.

529. AMERICAN GOLDFINCH, *Spinus tristis*. (Type, Plate IX.) Eggs, short, oval, pale blue, usually unmarked, rarely finely dotted; $.48 + .62$ to $.50 + .65$. Nests placed in trees, composed of strips of bark and plant fibres, lined with thistle-down. Breeds from the middle districts of the United States, northward, in July and August.

530. ARKANSAS GOLDFINCH, *Spinus psaltria*. Eggs, similar to those of No. 529, but are, perhaps, a little smaller, and the nests and nesting habits are similar. Breeds in Western United States, from the plains to the Pacific, and from Colorado and Utah southward to Sonora, in June.

530a. ARIZONA GOLDFINCH, *Spinus psaltria arizonæ*. Eggs and nests indistinguishable from those of No. 530. Breeds in Southern New Mexico and Southern Arizona, southward into Northern Mexico.

530b. MEXICAN GOLDFINCH, *Spinus psaltria mexicanus*. Eggs and nests do not probably differ from those of No. 530. Breeds in the valley of the Lower Rio Grande, Texas, southward through Mexico and Central America to Panama.

531. LAWRENCE'S GOLDFINCH, *Spinus lawrencei*. Eggs, 4 or 5, pure white; $.45 + .58$ to $.46 + .60$. The white color is characteristic. Nests, placed in trees, composed of weed stalks and grass, lined with finer material. Breeds in California, in May.

532. BLACK-HEADED GOLDFINCH, *Spinus notatus*. Eggs, probably similar to those of No. 530. Extralimital; breeds in Mexico; bird accidental in Kentucky.

533. PINE SISKIN, *Spinus pinus*. Eggs, 4 or 5, rounded oval, pale bluish green, spotted and dotted sparingly, but rather more thickly on the larger end, with blackish and pale lilac; $.50 + .70$ to $.52 + .72$. Resemble those of No. 527, but are bluer. Nests placed in trees and bushes, composed of twigs, and lined with hair. Breeds throughout North America, generally north of the United States, occurs southward along the mountain ranges, and rarely nests as far south as Massachusetts, in June.

534. SNOWFLAKE, *Plectrophenax nivalis*. Eggs, 4 or 5, ashy white, spotted and blotched with yellowish rufous, usually more thickly on the larger end; $.60 + .90$ to $.65 + .95$. The rather suffused yellowish or reddish markings are noticeable characteristics. Nests placed on the ground, composed of grass, lined with feathers. Breeds in the Arctic regions of the Northern Hemisphere, in May.

534a. PRYBILOF SNOWFLAKE, *Plectrophenax nivalis townsendi*. Eggs, similar to those of No. 534. Breeds on the Prybilof and Aleutian Islands, Alaska, and Commander Islands, Kamtschatka.

535. MCKAY'S SNOWFLAKE, *Plectrophenax hyperboreus*. Eggs, unknown. Breeds on Hall Island, Behring's Sea, winters in Alaska.

536. LAPLAND LONGSPUR, *Calcarius lapponicus*. Eggs, 4 to 7, oval, grayish or yellowish white, spotted and blotched, frequently so thickly as to conceal the ground color, with lilac, reddish brown, and umber; the abundant markings are characteristic; $.62 + .78$ to $.65 + .80$. Nests placed on the ground, composed of grass lined with finer material. Breeds in the far north of the Northern Hemisphere, in June and July.

537. SMITH'S LONGSPUR, *Calcarius pictus*. Eggs, 4 or 5, light clay color, obscurely blotched with lavender, and blotched, lined, and dotted with dark purplish brown; $.62 + .78$ to $.65 + .85$. Nests placed on the ground, composed of grass and weed stalks, lined with finer material. Breeds in the far northern interior of North America, in May and June.

538. CHESTNUT-COLLARED LONGSPUR, *Calcarius ornatus*. Eggs, similar to those of No. 537, and nests and nesting habits are also similar. Breeds in the interior of North America.

539. McCOWN'S LONGSPUR, *Rhynchophanes mccownii*. Eggs, 4 or 5, oval, light clay color, marbled, dotted, blotched, and lined with lavender, purplish, and reddish brown; $.58 + .78$ to $.60 + .80$. Nests placed on the ground, composed of coarse grass stems. Breeds in the interior of North America,

from the northern border of Western Kansas northward to the Saskatchewan Plains, in June.

540. VESPER SPARROW, *Poocetes gramineus*. (Type, Plate 1X.) Eggs, 4 or 5, rarely 6, oblong oval, greenish white, but very pale, spotted, blotched, and dotted, rather obscurely, with purplish brown, while there are almost always lines of umber; $.80 + .60$ to $.83 + .65$. The lines of umber are so nearly always present in the eggs of the Vesper Sparrow that they form a distinguishing character taken in connection with the prevalent paler colors of the other markings. Nests placed on the ground, composed of grass. Breeds in Eastern North America west to the plains, from Virginia, Kentucky, and Missouri north to Nova Scotia and Ontario, in April and May, and again in July.

540a. WESTERN VESPER SPARROW, *Poocetes gramineus confinis*. Eggs, indistinguishable from those of No. 540, and the nests and nesting habits are similar. Breeds in Western United States, from the plains to the Pacific, in April.

540b. OREGON VESPER SPARROW, *Poocetes gramineus affinis*. I have never seen the eggs, but presume that both they and the nests are similar to those of No. 540. This sub-species is described by Mr. G. S. Miller, Jr., in the "Auk" for October, 1888.

541. IPSWICH SPARROW, *Ammodramus princeps*. Authenticated eggs are unknown, but is supposed to breed on Sable Island, Gulf of St. Lawrence.

542. SANDWICH SPARROW, *Ammodramus sandwichensis*. Eggs, 5 or 6, rounded oval, greenish white, blotched and spotted, often so thickly as to conceal the ground color, with reddish and purplish brown; nests placed on the ground, composed of grass. Breeds in the northwest coast, from the Columbia River to Unalaska, in June.

542a. SAVANNA SPARROW, *Ammodramus sandwichensis savanna*. Eggs, 4 to 6, indistinguishable from those of No. 542, and the nests and nesting habits are similar. Breeds in

the eastern portion of North America, from New England north to Labrador and Hudson's Bay Territory, in June.

542b. WESTERN SAVANNA SPARROW, *Ammodramus sandrichensis alaudinus*. Eggs, similar to those of No. 542, but the spots are usually larger and darker. Nests and nesting habits similar to those of the eastern species. Breeds in the western section of North America, from the plains to the Pacific coast north to the Arctic coast, in June.

542c. BRYANT'S MARSH SPARROW, *Ammodramus sandrichensis bryanti*. Eggs, indistinguishable from those of No. 542, and the nests and nesting habits are similar. Nos. 542, 542a, and 542c are usually known by the suffusion of the spottings that nearly cover the surface of the eggs. Breeds on the salt marshes about San Francisco Bay, in May.

543. BELDING'S MARSH SPARROW, *Ammodramus beldingi*. Eggs, unknown. Breeds on the salt marshes of the Pacific coast, from Santa Cruz south to Todos Santos Island, Lower California.

544. LARGE-BILLED SPARROW, *Ammodramus rostratus*. Eggs, unknown. Breeds on the coast of California.

544a. ST. LUCAS SPARROW, *Ammodramus rostratus guttatus*. Eggs, unknown. Breeds in Lower California.

545. BAIRD'S SPARROW, *Ammodramus bairdii*. Eggs, 4 or 5, long oval, pale green, spotted and blotched with brown and lilac of varying shades; .54 + .71 to .56 + .74. Nests placed on the ground, composed of bark and grass. Breeds in the interior of North America from the plains of the Red River and Saskatchewan southward, in May and June.

546. GRASSHOPPER SPARROW, *Ammodramus passerinus*. Eggs, 4 or 5, oval or elliptical, pure white, spotted and blotched, usually more thickly about the larger end, where they often form a ring, with purple, umber, and brown; .58 + .75 to .60 + .78. The pure white color is characteristic of this group. Nests placed on the ground, composed of dried grasses, lined with hair. Breeds in Eastern United States

west to the plains, south to the Carolinas, in May and June, and again in July.

546a. WESTERN GRASSHOPPER SPARROW, *Ammodramus savannarum perpallidus*. Eggs, indistinguishable from those of No. 546, and the nests and nesting habits are similar. Breeds in Western United States, from the plains to the Pacific.

546b. SOUTHERN GRASSHOPPER SPARROW, *Ammodramus australis*. Eggs, undescribed, but they do not probably differ from those of No. 546. Breeds in Florida and the Bahamas. This is the species which I have described recently. (See my "Birds of Eastern North America, revised edition.")

547. HENSLow's SPARROW, *Ammodramus henslowii*. Eggs, scarcely to be distinguished from those of No. 546a, but are sometimes tinged with greenish, and the nests and nesting habits are similar. Breeds in Eastern United States west to the plains, from Massachusetts south to the Carolinas, but locally distributed, in May and June.

548. LECONT'S SPARROW, *Ammodramus leconteii*. Eggs, white, sparingly spotted and dotted on larger end with brown and blue; $.74 + .49$ to $.75 + .50$. Breeds in the interior of North America, from Manitoba southward.

549. SHARP-TAILED FINCH, *Ammodramus caudacutus*. Eggs, 4 to 6, oval or elliptical, pale greenish, thickly spotted and dotted with reddish brown and lilac; $.56 + .70$ to $.59 + .78$. Nests placed on the ground, composed of grass. Distinguished from 550 by the finer character of the markings. Breeds on the salt marshes of the Atlantic coast, from New England south to the coast of New Jersey, in June, and again late in July or August.

549a. NELSON'S SPARROW, *Ammodramus caudacutus nelsoni*. Eggs, probably indistinguishable from those of No. 549, and the nests and nesting habits are doubtless similar. Breeds on the fresh marshes of the Mississippi Valley region, especially in the more northern portion.

549*b*. ACADIAN SHARP-TAILED FINCH, *Ammodramus caudatus subvirgatus*. Eggs, probably indistinguishable from those of No. 549. Breeds on the coast of Southern New Brunswick and Prince Edward Island. Described by Dwight in the "Auk" for July, 1887.

550. SEASIDE SPARROW, *Ammodramus maritimus*. Eggs, 4 to 6, oval or elliptical, grayish white, usually coarsely spotted with reddish brown, and this coarse marking, as a rule, distinguishes them from those of No. 549, but specimens occur in both species that intergrade; $.60 + .82$ to $.68 + .88$. Nests placed on the ground, composed of coarse grass and weeds. Breeds on the salt marshes of the Atlantic from Connecticut southward and along the Gulf coast to the Rio Grande, in April, May, and June, depending on the latitude.

550*a*. SCOTT'S SEASIDE SPARROW, *Ammodramus maritimus peninsular*. Eggs, probably similar to those of No. 550. Breeds in the vicinity of Cedar Keys, Florida, and west to the coast of Louisiana, in February or March. Described by Allen in the "Auk" for July, 1888.

550*b*. TEXAN SEASIDE SPARROW, *Ammodramus maritimus sennetti*. Eggs, probably similar to those of No. 550. Breeds on the coast of Texas. Described by Allen in the "Auk" for July, 1888.

551. DUSKY SEASIDE SPARROW, *Ammodramus nigrescens*. Eggs, unknown. Breeds on the east side of Indian River, Florida, on the salt marshes south of the Haulover Canal, to the northern and west side of Merritt's Island, in April and May.

552. LARK SPARROW, *Chondestes grammacus*. Eggs, 4 or 5, rounded oval, pure white or grayish, spotted, streaked, lined, and dotted with dark brown and black; $.60 + .80$ to $.65 + .85$. Known by their general resemblance to those of the Oriole. Nests placed on the ground or in trees or bushes, composed of grass and weeds. Breeds in the Mississippi Valley region, from Ohio, Illinois, and Michigan to the plains, south to Eastern Texas, in May and June.

552a. WESTERN LARK SPARROW, *Chondestes grammacus strigatus*. Eggs, indistinguishable from those of No. 552, and the nests and nesting habits are similar. Breeds in Western United States from the plains to the Pacific coast, south into Mexico.

553. HARRIS'S SPARROW, *Zonotrichia querula*. Eggs, well authenticated, are unknown. Breeds in Middle United States and northward from the Red River of the North southward.

554. WHITE-CROWNED SPARROW, *Zonotrichia leucophrys*. Eggs, 4 or 5, oblong oval, greenish white, thickly spotted with reddish and purplish brown; $.70 + .90$ to $.75 + .95$. Nests placed on the ground, composed of grass and moss, lined with hair. Breeds in the Rocky Mountains and Sierra Nevada, northward and northeast to Labrador, in June.

555. INTERMEDIATE SPARROW, *Zonotrichia intermedia*. Eggs, indistinguishable from those of No. 554, and the nests and nesting habits are similar. Breeds in Western North America, from the Rocky Mountains to the Pacific, north of the United States, in June.

556. GAMBELL'S SPARROW, *Zonotrichia gambelli*. Eggs, indistinguishable from those of No. 554, and the nests and nesting habits are similar. Breeds in the Pacific coast region, from Oregon southward, in June.

557. GOLDEN-CROWNED SPARROW, *Zonotrichia coronata*. Eggs, 4 or 5, rounded oval, pale green, spotted and blotched with reddish brown; $.64 + .80$ to $.67 + .82$. Nests placed on the ground, composed of grass, leaves, and weeds, lined with rootlets. Breeds in the northern Pacific coast region, in June.

558. WHITE-THROATED SPARROW, *Zonotrichia albicollis*. Eggs, 4 or 5, rounded oval, bluish white, spotted, blotched, and dotted with reddish brown and lilac; $.60 + .80$ to $.65 + .90$. Nests placed on the ground, composed of grass, roots, and leaves, lined with horse-hair and grass. Breeds in Eastern North America, from Northern Michigan, Northern New York,

and Northern New England, north to the fur countries and Labrador, in June.

559. TREE SPARROW, *Spizella monticola*. Eggs, 4 or 5, oval, greenish ash, spotted with reddish brown; $.55 + .70$ to $.56 + .74$, somewhat resembling those of the Field Sparrow, but larger. Nests placed in bushes, composed of mud, grass, and weeds, lined with hair. Breeds in North America, north of the United States, east of the Rocky Mountains, in June.

559a. WESTERN TREE SPARROW, *Spizella monticola ochracea*. Eggs, probably indistinguishable from those of No. 559. Breeds in Alaska.

560. CHIPPING SPARROW, *Spizella socialis*. (Type, Plate VIII.) Eggs, 4 or 5, oval, blue, spotted, dotted, and lined with black and lilac; $.50 + .75$ to $.55 + .80$. Nests placed in trees and bushes, composed of fine roots, lined with horse-hair. Breeds in Eastern North America, west to the Rocky Mountains, from the middle districts northward to Great Slave Lake and the British Provinces, in June.

560a. WESTERN CHIPPING SPARROW, *Spizella socialis arizonæ*. Eggs, indistinguishable from those of No. 560, and the nests and nesting habits are similar. Breeds in Western United States, from the Rocky Mountains to the Pacific, in May.

561. CLAY-COLORED SPARROW, *Spizella pallida*. Eggs, 4 or 5, oval, greenish blue, spotted, dotted, and lined with brown, seldom with black; $.50 + .72$ to $.55 + .80$. The almost universal absence of black lines distinguishes them from those of No. 560. Nests placed in bushes, composed of grass and weeds, lined with rootlets and hair. Breeds in the interior of North America, from Illinois and Iowa west to the Rocky Mountains, north to the Saskatchewan plains, in May.

562. BREWER'S SPARROW, *Spizella breweri*. Eggs, indistinguishable from those of No. 561, and the nests and nesting habits are similar. Breeds in Western United States, from the eastern base of the Rocky Mountains to the Pacific coast, in May and June.

563. FIELD SPARROW, *Spizella pusilla*. Eggs, 4 or 5, oval, bluish white, spotted and blotched with reddish brown and lilac; $.50 + .61$ to $.55 + .70$. The light markings are characteristic. Nests placed on the ground or in bushes, composed of fine grass and weeds, lined with grass and horse-hair. Breeds in Eastern United States, west to the plains, from North Carolina north to Southern Canada, in May and June.

563a. WESTERN FIELD SPARROW, *Spizella pusilla arenacea*. Eggs, unknown. Birds occur in Texas. Described by Mr. A. P. Chadborne in the "Auk" for April, 1886.

564. WORTHEN'S SPARROW, *Spizella wortheni*. Eggs, unknown. Breeds in New Mexico and Western Texas.

565. BLACK-CHINNED SPARROW, *Spizella atrigularis*. Eggs, light greenish blue, unspotted; $.68 + .50$. Nests placed in bushes. Breeds on the southern border of the United States, from California to Texas.

566. WHITE-WINGED JUNCO, *Junco akeni*. Eggs, unknown. Breeds in the Black Hills.

567. SLATE-COLORED JUNCO, *Junco hyemalis*. Eggs, 4 or 5, oval, varying from white to bluish, spotted, generally finely and profusely, with reddish brown and lilac; $.55 + .70$ to $.60 + .75$. Nests placed on the ground or very rarely in bushes, composed of fine grass. Breeds in North America, east of the Rocky Mountains, from Northern New York and New England, northward, and south along the Alleghanies, in June.

567a. OREGON JUNCO, *Junco hyemalis oregonis*. Eggs, indistinguishable from those of No. 567, and the nests and nesting habits are similar. Breeds in Western United States, east to the plains, northward to Alaska, in June.

567b. CAROLINA JUNCO, *Junco carolinensis*. Eggs, similar to those of No. 567, but are a little larger. Nests placed in trees and bushes. Breeds in the mountains of North Carolina, in June. Described by Mr. William Brewster in the "Auk" for January, 1886.

568. PINK-SIDED JUNCO, *Junco annectens*. Eggs and nests

not varying appreciably from those of No. 567. Breeds in the Rocky Mountain region of Idaho and Montana.

569. GRAY-HEADED JUNCO, *Junco caniceps*. Eggs, similar to those of No. 567, excepting that they are usually less distinctly spotted, and the nests and nesting habits are similar. Breeds in the Rocky Mountain region, from the Black Hills to the Wasatch and Uintah Mountains.

570. ARIZONA JUNCO, *Junco cinereus palliatus*. Eggs, greenish white, unspotted; $.75 + .58$ to $.78 + .60$. Breeds in the mountains of Southern Arizona.

570a. RED-BACKED JUNCO, *Junco cinereus dorsalis*. Eggs, 4 or 5, oval, greenish white, finely sprinkled, usually in a ring around the larger end, with reddish brown; $.58 + .75$ to $.60 + .78$. Breeds in the mountains of New Mexico and Eastern Arizona.

571. BAIRD'S JUNCO, *Junco bairdi*. Eggs, unknown. Breeds in Lower California.

572. GUADALUPE JUNCO, *Junco insularis*. Eggs, according to Ridgway, are whitish, sprinkled, chiefly on the larger end, with reddish brown; $.59 + .80$. Breeds on the Guadalupe Island, Lower California.

573. BLACK-THROATED SPARROW, *Amphispiza bilineata*. Eggs, 3 or 4, oval, or rounded oval, bluish white, unspotted; $.53 + .70$ to $.60 + .75$. Distinguished by the rounded oval form and plain bluish white color. Nests placed in bushes, composed of grass and weeds. Breeds in Western United States, from Western Texas and the Indian Territory, west to California, north throughout the Great Basin, in June.

574. BELL'S SPARROW, *Amphispiza belli*. Eggs, 3 or 4, rounded oval, pale greenish blue, finely spotted with reddish brown; $.60 + .80$ to $.62 + .82$. Nests placed in bushes, composed of weeds, lined with grass and hair. Breeds in California, in May and June.

574a. SAGE SPARROW, *Amphispiza belli nevadensis*. Eggs, indistinguishable from those of No. 574, and the nests and

nesting habits are similar. Breeds in Southeastern Wyoming, Utah, and Nevada, in May and June.

575. PINE-WOODS SPARROW, *Peucea æstivalis*. Eggs, 4 or 5, oval, pure white, unspotted; $.60 + .80$ to $.63 + .81$. The plain white or bluish-tinted color and oval form is the characteristic of this group. Nests placed on the ground, loosely constructed, composed of grass. Breeds in Florida and Southern Georgia, in June.

575a. BACHMAN'S SPARROW, *Peucea æstivalis bachmanii*. Eggs, indistinguishable from those of No. 575, and the nests and nesting habits are similar. Breeds in South Carolina and Alabama, west to Texas, and north to Southern Illinois and Southern Indiana, in June.

576. ARIZONA SPARROW, *Peucea arizonæ*. Eggs, indistinguishable from those of No. 575, and the nests and nesting habits are similar. Breeds in Southern Arizona and Sonora.

577. MEXICAN SPARROW, *Peucea mexicana*. Eggs and nests probably similar to those of No. 575. Breeds in the valley of the Lower Rio Grande in Texas, and south into Central and Western Mexico.

578. CASSIN'S SPARROW, *Peucea cassini*. Eggs, similar to those of No. 575; $.56 + .73$. Breeds on the plains of Kansas, and westward through Texas, New Mexico, and Arizona.

579. RUFOUS-WINGED SPARROW, *Peucea carpalis*. Eggs, according to Ridgway, bluish white; $.54 + .75$. Breeds in Arizona.

580. RUFOUS-CROWNED SPARROW, *Peucea ruficeps*. Eggs, similar in color to those of No. 575; $.60 + .78$ to $.62 + .80$. Breeds on the coast of California, southward.

580a. BOUCARD'S SPARROW, *Peucea ruficeps boucardi*. Eggs, similar to those of No. 575. Breeds in Southern New Mexico and Arizona.

580b. ROCK SPARROW, *Peucea ruficeps eremæa*. Eggs, probably similar to those of No. 575. Breeds in Southwestern Texas, south into Eastern Mexico.

581. SONG SPARROW, *Melospiza fasciata*. (Type, Plate X.) Eggs, 4 or 5, oval, bluish, spotted and dotted with reddish brown and lilac; $.62 + .80$ to $.65 + .85$. Nests placed on the ground or on trees or bushes, composed of grass and weeds, lined with finer material. Breeds in Eastern United States to the plains, and from Virginia and the northern portion of the Lake States, northward, in April and May, and again in July.

581a. DESERT SONG SPARROW, *Melospiza fasciata fallax*. Eggs, indistinguishable from those of No. 581. Nests made of strips of bark, straw, and other available material, and usually placed at an elevation above the ground. Breeds in New Mexico and Arizona.

581b. MOUNTAIN SONG SPARROW, *Melospiza fasciata montana*. Eggs, indistinguishable from those of No. 581, and the nests and nesting habits are similar. Breeds in Colorado, Utah, Nevada, and northward, in May.

581c. HEERMANN'S SONG SPARROW, *Melospiza fasciata heermanni*. Eggs, indistinguishable from those of No. 581, and the nests are similar. Breeds in the interior of Southern California, east into Western Nevada, in May.

581d. SAMUEL'S SONG SPARROW, *Melospiza fasciata samuelis*. Eggs, similar to those of No. 581, but are a little smaller. Breeds in the coast region of California, in April and May.

581e. RUSTY SONG SPARROW, *Melospiza fasciata guttata*. Eggs, similar to those of No. 581. Breeds in the coast region of Oregon and Washington Territory.

581f. SOOTY SONG SPARROW, *Melospiza fasciata rufina*. Eggs, probably similar to those of No. 581. Breeds in the coast region of British Columbia, north to Sitka.

581g. BROWN'S SONG SPARROW, *Melospiza fasciata ricularis*. Eggs, probably similar to those of No. 581. Breeds in Lower California. Described by Bryant in "Proceedings of the California Academy of Science," September, 1888.

582. ALEUTIAN SONG SPARROW, *Melospiza cinerea*. Eggs, pale greenish, spotted and blotched with reddish brown and amber; $.64 + .88$ to $.65 + .90$. Breeds in the Aleutian and Prybilof Islands, and east to Fort Kenai, Alaska.

583. LINCOLN'S SPARROW, *Melospiza lincolni*. Eggs, 4 or 5, rounded oval, pale green, dotted and spotted with reddish brown, often so thickly as to conceal the ground color; $.58 + .72$ to $.60 + .74$. Nests placed on the ground, composed of grass. Breeds throughout North America, generally north of the United States, but occasionally as far south as Massachusetts and Ohio, in June.

584. SWAMP SPARROW, *Melospiza georgiana*. Eggs, 4 or 5, oval, pale blue, spotted, blotched, and marked with large, somewhat suffused, splashes of reddish brown and lilac; $.56 + .75$ to $.60 + .80$. The rather suffused larger blotchings separate them from those of No. 581. Nests placed on the ground, composed of grass and roots, lined with grass. Breeds in Eastern North America, from the Northern States north to Labrador, in May and June.

585. FOX SPARROW, *Passerella iliaca*. Eggs, 4 or 5, oval, pale green, spotted, blotched, and dotted irregularly with reddish brown, with an under tint of lilac; $.65 + .85$ to $.67 + .86$. Nests almost always placed on the ground, composed of grass and moss, lined with feathers. Breeds in Eastern North America, north of the United States, in May and June.

585a. TOWNSEND'S SPARROW, *Passerella iliaca unalaschensis*. Eggs, 3 or 4, pale green, spotted, principally about the larger end, with two shades of brown and lavender; $.64 + .87$ to $.65 + .98$. Nests placed in bushes or at an elevation above the ground, composed of bark and grass. Breeds in the Pacific coast region, north of the United States, in June.

585b. THICK-BILLED SPARROW, *Passerella iliaca megarhyncha*. Eggs, not dissimilar from those of No. 585a. Breeds in the Sierra Nevada and Coast Range, California, in June and July.

585c. SLATE-COLORED SPARROW, *Passerella iliaca schistacea*. Eggs, as a rule, scarcely distinguishable from those of No. 585a, but the spottings are perhaps a little more purplish. Nests not placed on the ground. Breeds in the Rocky Mountain region of the United States, in June.

586. TEXAS SPARROW, *Embernagra rufivergata*. Eggs, 2 to 4, rounded oval, pale blue, unspotted. Breeds in the valley of the Lower Rio Grande, in Texas, and in Eastern Mexico.

587. TOWHEE, *Pipilo erythrophthalmus*. Eggs, 4 or 5, elliptical, ashy white, spotted, dotted, and blotched with reddish brown and lilac; $.70 + .90$ to $.75 + .95$. Rather fine pale markings characterize the eggs of the black-backed towhees. Nests placed on the ground, composed of grass, leaves, and strips of bark, lined with fine grass. Breeds in Eastern United States and Southern Canada, west to the plains, in May and June, but is locally distributed.

587a. WHITE-EYED TOWHEE, *Pipilo alleni*. Eggs, 3 or 4, elliptical, creamy white, spotted and dotted with reddish brown; $.70 + .95$ to $.75 + 1.00$. Nests placed in bushes, composed of grass, weeds, rootlets, lined with fine grass. Breeds in Florida, north to South Carolina, in April and May.

588. ARCTIC TOWHEE, *Pipilo maculatus arcticus*. Eggs, 4 or 5, oval, white, spotted and dotted so thickly with umber as nearly to conceal the ground color; $.68 + .95$ to $.70 + 1.00$. Nests placed on the ground, and are similar to those of No. 587. Breeds on the plains of the Platte, Upper Missouri, Yellowstone, and Saskatchewan Rivers, west to the eastern slope of the Rocky Mountains, in June.

588a. SPURRED TOWHEE, *Pipilo maculatus megalonyx*. Eggs, 4 or 5, rather elliptical, greenish or white, thickly and finely spotted with reddish and purplish brown; $.65 + .95$ to $.70 + 1.00$. Nests placed on the ground, composed of leaves, grass, and strips of bark. Breeds in the Rocky region of the United States, west to the Sierra Nevada and Southern California, in May and June.

588b. OREGON TOWHEE, *Pipilo maculatus oregonus*. Eggs and nests similar to those of No. 588. Breeds in the Pacific coast region, from Washington Territory southward, in May and June.

589. GUADALUPE TOWHEE, *Pipilo consobrinus*. Eggs are undescribed. Breeds in Guadalupe Island, Lower California.

590. GREEN-TAILED TOWHEE, *Pipilo chlorurus*. Eggs, 4 or 5, oval, pale bluish white, finely and often profusely, but sometimes sparingly, dotted with pinkish drab; $.65 + .80$ to $.68 + .88$. Nests placed in bushes, composed of weeds, strips of bark, etc. Breeds in the interior plateau region of the United States, from the western border of the plains to the Sierra Nevada, from about latitude 40° , south into Mexico, in May.

591. CANON TOWHEE, *Pipilo fuscus mesoleucus*. Eggs, 3 or 4, rounded oval, pale blue, spotted, dotted, and lined with purplish brown and black; $.75 + 1.00$ to $.78 + 1.05$. The eggs of the brown towhees greatly resemble those of the red-winged blackbirds, but are larger and more rounded oval. Nests placed in bushes, composed of twigs, grass, and bark. Breeds on the southern border of the United States, from the valley of the Upper Rio Grande west to the valley of the Gila, south into Western Mexico, in April and May.

591a. SAINT LUCAS TOWHEE, *Pipilo fuscus albigula*. Eggs and nests similar to those of No. 591. Breeds in Lower California, in April.

591b. CALIFORNIAN TOWHEE, *Pipilo fuscus crissalis*. Eggs and nests indistinguishable from those of No. 591. Breeds in California, in April.

592. ABERT'S TOWHEE, *Pipilo aberti*. Eggs, 3 or 4, oval, white or bluish, dotted and lined with black; $.68 + .90$ to $.70 + .93$. Nests placed in bushes, composed of coarse bark, lined with finer material. Breeds in New Mexico and Arizona, north into Southern Colorado and Utah, in May.

593. CARDINAL, *Cardinalis cardinalis*. (Type, Plate X.) Eggs, elliptical, ashy white, spotted and blotched with reddish

brown and lilac; $.80 + 1.00$ to $.82 + 1.05$. Nests placed in trees, composed of weeds, leaves, and moss, lined with fine grass. Breeds in Eastern United States, north to New Jersey and the Ohio Valley, west to the plains, in April and May.

593a. ARIZONA CARDINAL, *Cardinalis cardinalis superbus*. Eggs, indistinguishable from those of No. 593, and the nests and nesting habits are similar. Breeds in Arizona and Western Mexico, in April.

593b. SAINT LUCAS CARDINAL, *Cardinalis cardinalis igneus*. Eggs and nests similar to those of No. 593. Breeds in Lower California.

594. TEXAS CARDINAL, *Pyrrhuloxia sinuata*. Eggs and nests similar to those of No. 593. Breeds along the southern border of the United States, from the valley of the Lower Rio Grande, westward and southward, in April.

594a. ARIZONA PYRRHULOXIA, *Pyrrhuloxia sinuata beckhami*. Eggs, probably indistinguishable from those of No. 594. Breeds in Southern Arizona and Western Texas.

594b. SAINT LUCAS PYRRHULOXIA, *Pyrrhuloxia sinuata peninsulae*. Eggs, unknown, but probably similar to those of No. 594. Breeds in Lower California.

595. ROSE-BREADED GROSBEAK, *Habia ludoviciana*. Eggs, 4 or 5, oval, bluish green, spotted and blotched with reddish brown and lilac; $.68 + .92$ to $.75 + 1.00$. Nests placed in trees or bushes, composed of twigs and grass. Breeds in Eastern United States, west to the eastern border of the plains, from Southern Canada, southward, in June.

596. BLACK-HEADED GROSBEAK, *Habia melanocephala*. Eggs, 4 or 5, indistinguishable from those of No. 595, and the nests and nesting habits are similar. Breeds in Western United States, from Middle Kansas to the Pacific coast, in May.

597. BLUE GROSBEAK, *Gairaca carulea*. Eggs, 4 or 5, oval, pale bluish green, unspotted; $.60 + .90$ to $.65 + .98$. Nests placed on trees, composed of strips of bark, grass, etc. Breeds

in the southern half of the United States, from the Atlantic to the Pacific, excepting, perhaps, Florida.

598. INDIGO BUNTING, *Passerina cyanea*. Eggs, 4 or 5, oval, pale bluish green, generally unspotted, but rarely dotted with reddish brown; $.50 + .71$ to $.60 + .80$. Nests placed in bushes, composed of grass, leaves, etc. Breeds in the middle and northern portion of the United States, in June.

599. LAZULI BUNTING, *Passerina amoena*. Eggs, indistinguishable from those of No. 598, and the nests and nesting habits are similar. Breeds in Western United States, from the plains to the Pacific, in May and June.

600. VARIED BUNTING, *Passerina versicolor*. Eggs, bluish white, unspotted; $.55 + .75$ to $.58 + .78$. Breeds in the valley of the Lower Rio Grande, Texas, and Lower California, southward, in May.

600a. BEAUTIFUL BUNTING, *Passerina versicolor pulchra*. Eggs, unknown. Breeds in Lower California and Western Mexico.

601. PAINTED BUNTING, *Passerina ciris*. Eggs, 3 or 4, rounded oval, ashy white, spotted and blotched with reddish brown, lilac, and umber; $.45 + .55$ to $.55 + .60$. Nests placed in trees, composed of grass, lined with horse-hair and fine grass. Breeds in the South Atlantic and Gulf States, north to North Carolina and Southern Illinois, in May and June.

602. SHARPE'S SEED-EATER, *Sporophila moreletii sharpei*. Eggs, undescribed. Nests open structures, composed of fine roots and fibres, lined with horse-hair. Breeds in the valley of the Lower Rio Grande, Texas, and southward to Costa Rica, in May and June.

603. GRASSQUIT, *Euetheia bicolor*. Eggs, 1 to 3, oval, ashy white, spotted and dotted with rather pale reddish brown, and resemble those of No. 563; $.45 + .70$ to $.50 + .72$. Nests placed in trees; they are globular structures, composed of grass, leaves, and weeds, lined with finer material.

Extralimital; breeds in the Bahamas and West Indies, in April, May, and June. Bird accidental in Florida.

603a. MELODIOUS GRASSQUIT, *Euthesia canora*. I have never seen the eggs. Breeds in Cuba; bird accidental on Sombrero Key, Southern Florida.

604. DICKCISSEL (Black-throated Bunting), *Spiza americana*. Eggs, 3 or 4, oval, rather pale bluish green, usually unspotted; .60 + .75 to .65 + .85. Almost indistinguishable from those of our bluebirds, but are a little smaller. Nests placed in bushes or on the ground, composed of grass, rootlets, etc. Breeds in Eastern United States, west to the Rocky Mountains, north to Massachusetts, where it is very rare, New York, Wisconsin, and Minnesota, in May and June.

605. LARK BUNTING, *Calamospiza melanocorys*. Eggs, 4 or 5, rounded oval, pale bluish green, usually unspotted; .68 + .88 to .70 + .90. Nests placed on the ground, composed of grass, lined with hair. Breeds from the plains of Dakota and Middle Kansas, west to the Rocky Mountains, in May and June.

FAMILY L. — TANAGRIDÆ. TANAGERS.

Eggs, variously colored, but usually spotted; nests placed in trees. The species are largely represented in the tropics, but are limited with us.

606. BLUE-HEADED EUPHONIA, *Euphonia elegantissima*. I have never seen the eggs. Breeds in Eastern Mexico and southward; bird only accidental in Texas, thus is extralimital.

607. LOUISIANA TANAGER, *Piranga ludoviciana*. Eggs, 3 or 4, oval, bluish green, spotted and blotched with reddish brown and lilac; .66 + .95 to .65 + .93. Nests placed on trees, composed of a few twigs, lined with rootlets. Breeds in Western United States, from the Great Plains to the Pacific, in June.

607a. GRAY'S TANAGER, *Piranga rubriceps*. Eggs, probably unknown. Breeds in Colombia. One bird taken in Dos Pueblos, Santa Barbara County, California; extralimital.

608. SCARLET TANAGER, *Piranga erythromelas*. Eggs, 3 or 4, oval, bluish green, spotted, blotched, and dotted with purplish brown and lilac; $.60 + .85$ to $.65 + .95$. Nests placed in trees, composed of twigs, and are flat in form. Breeds in Eastern United States, west to the plains, from the middle districts northward to Southern Canada, in June.

609. HEPATIC TANAGER, *Piranga hepatica*. Eggs, oblong oval, pale green, spotted, blotched, and mottled with purplish brown; $.70 + .95$ to $.72 + 1.02$. Breeds in Southern New Mexico and Southern Arizona, southward.

610. SUMMER TANAGER, *Piranga rubra*. (Type, Plate IX.) Eggs, 3 or 4, oval, bluish green, spotted and blotched with reddish brown and umber; $.85 + .70$ to $.90 + .75$. Nests placed in trees, deeply cup-shaped, composed of grass, etc. Breeds in Eastern United States, west to the plains, north to Southern New Jersey and Southern Illinois, in April and May.

610a. COOPER'S TANAGER, *Piranga rubra cooperi*. Eggs, indistinguishable from those of No. 610, and the nests and nesting habits are similar. Breeds in New Mexico and Arizona, south into Western Mexico.

FAMILY LI. — HIRUNDINIDÆ. SWALLOWS.

Members of this family usually deposit their eggs in holes of trees, in banks, in holes of cliffs, beneath eaves of buildings, in martin boxes, in buildings, etc. Eggs, both plain and spotted.

611. PURPLE MARTIN, *Progne subis*. Eggs, 4 or 5, pointed oval, white; $.65 + .80$ to $.60 + .70$. Nests composed of leaves and grass, lined with feathers, placed in holes of trees, or in boxes erected for the accommodation of the birds. Breeds in temperate North America, but of rather local distribution, in June.

611a. CUBAN MARTIN, *Progne cryptoleuca*. Eggs, indistinguishable from those of No. 611. Breeds in Southern Florida, in May, nesting in holes of trees, and in Cuba.

612. CLIFF SWALLOW, *Petrochelidon lunifrons*. Eggs, 4 or 5, long oval, white, spotted and blotched with reddish brown and lilac; $.65 + .80$ to $.60 + .70$. Nests, gourd-shaped, composed of mud, and placed under the eaves of buildings or on cliffs. Breeds throughout North America, in May and June.

613. BARN SWALLOW, *Chelidon erythrogaster*. (Type, Plate X.) Eggs, 4 to 6, oval white, spotted and blotched with reddish and purplish brown; $.50 + .75$ to $.56 + .94$. Nests placed in buildings, composed of mud and straws, lined with feathers. Breeds throughout North America, from the fur countries southward, excepting the more southern portions, in June.

614. TREE SWALLOW, *Tachycineta bicolor*. Eggs, 4 to 6, long oval, white, unspotted; $.45 + .63$ to $.55 + .83$. Nests placed in holes of trees, cavities in buildings, and in martin boxes. Breeds throughout North America, from the fur countries southward, excepting the more southern portion, in June.

615. VIOLET-GREEN SWALLOW, *Tachycineta thalassina*. Eggs, 4 to 6, oval, white; $.45 + .75$ to $.50 + .80$. Nests placed in holes of trees, or in cavities of rocky cliffs, composed of straw, and lined with feathers. Breeds in Western United States, from the eastern base of the Rocky Mountains to the Pacific, in June.

616. BANK SWALLOW, *Clivicola riparia*. Eggs, 4 to 6, oval, white; $.45 + .70$ to $.47 + .72$. Nests placed in burrows dug by the birds, in banks of earth, composed of straw. Breeds throughout the Northern Hemisphere; in America, in all but the extreme southern portion, in June.

617. ROUGH-WINGED SWALLOW, *Stelgidopteryx serripennis*. Eggs, 4 to 6, oval, white; $.50 + .69$ to $.53 + .78$. Nests composed of straw, weeds, or feathers, and placed in holes of banks, — the deserted nest of a kingfisher being often used, the birds rarely excavating for themselves, — or in crevices in bridges in building, etc. Breeds throughout the United States, in the Eastern States north to Connecticut, in June.

FAMILY LII.—AMPELIDÆ. WAXWINGS, ETC.

Eggs, variously colored, but usually spotted. Nests placed in trees. Members of this family are limited with us.

618. BOHEMIAN WAXWING, *Ampelis garrulus*. Eggs, 3 to 6, oval, yellowish gray, lined, spotted, and blotched with yellowish brown, dark purple, and black, with lighter shadings around the spots, as seen in those of No. 619; $.65 + .80$ to $.70 + .90$. Nests placed in trees, composed of rootlets, moss, grass, and strips of grass, lined with feathers. Breeds in the far north of the Northern Hemisphere, in June.

619. CEDAR WAXWING, *Ampelis cedrorum*. (Type, Plate X.) Eggs, similar in form and color to those of No. 618, but are smaller; $.60 + .80$ to $.70 + .88$. Nests composed of moss, strips of blue grass, etc., placed in trees. Breeds in North America, from the fur countries to the southern middle section, in June.

620. PHAINOPEPLA, *Phainopepla nitens*. Eggs, 3 or 4, greenish gray, finely dotted with purplish brown and black; $.58 + .85$ to $.60 + .80$. Nests placed in trees, composed of flax-like fibres of plants, weeds, and grasses, lined with finer material. Breeds in Southwestern United States, from Southwestern Texas westward to California, north to Southern Utah and Nevada, in April and May.

FAMILY LIII.—LANIIDÆ. SHRIKES.

The eggs of all the North American species are greenish gray, spotted and blotched irregularly with clay color, reddish brown, and purplish, and vary in number from 5 to 7; they are oval. The greenish gray or clay color of the markings is a striking peculiarity. Nests are bulky, composed of flax-like fibres of plants, weeds, grass, twigs, cotton, or any other available material, and are placed in trees.

621. NORTHERN SHRIKE, *Lanius borealis*. Eggs, $.75 + 1.05$ to $.80 + 1.10$. Breeds in Northern North America, mainly north of the United States, in May and June.

622. **LOGGERHEAD SHRIKE**, *Lanius ludovicianus*. Eggs, $.72 + 1.02$ to $.78 + 1.08$. Breeds in Florida, the Carolinas, and Gulf States, west to Texas, in April and May.

622*a*. **WHITE-RUMPED SHRIKE**, *Lanius ludovicianus excubitorides*. Eggs, size of those of No. 622. Breeds in Western United States, Northern New York, and Northern New England, in May and June.

622*b*. **CALIFORNIA SHRIKE**, *Lanius ludovicianus gambeli*. Eggs, indistinguishable from those of No. 622, and the nests and nesting habits are similar. Breeds on the coast of California, in April. Described by Ridgway in "Manual of North American Birds," 1887.

FAMILY LIV.—VIREONIDÆ. VIREOS.

Nests more or less purse-shaped, suspended from the fork of a branch of trees or bushes. Eggs, white, spotted to a greater or less extent, and quite difficult to identify.

623. **BLACK-WHISKERED VIREO**, *Vireo altiloquus barbatulus*. Eggs, 2 or 3, oval, white, spotted and dotted with purplish brown and black; $.53 + .78$ to $.55 + .88$. Nests composed of grass, leaves, and fragments of palm fronds, lined with rootlets. Breeds in the Bahamas, Cuba, and Southern Florida, in June.

624. **RED-EYED VIREO**, *Vireo olivaceus*. (Type, Plate X.) Eggs, 3 or 4, more rarely 2, oval, white, spotted and dotted with brown and black; $.52 + .78$ to $.65 + .95$. Nests composed of strips of grass and leaves or moss, lined with finer material. Breeds in Eastern North America, west to the Rocky Mountains, in June.

625. **YELLOW-GREEN VIREO**, *Vireo flavoviridis*. Eggs, unknown. Breeds in the valley of the Lower Rio Grande, Texas, southward to Panama.

626. **PHILADELPHIA VIREO**, *Vireo philadelphicus*. Eggs, 3 or 4, similar to those of No. 624, and the nests and nesting habits are similar, but the eggs are smaller; $.48 + .70$ to $.50$

+ .75. Breeds in Eastern North America, from Northern New England north to Hudson's Bay, in June.

627. WARBLING VIREO, *Vireo gilvus*. Eggs, 4 or 5, oval, white, finely spotted and dotted with dark brown and black; .80 + .52 to .55 + .75. Nests usually placed in high trees, composed of the usual material. Breeds throughout Middle North America north to the fur countries, in June.

628. YELLOW-THROATED VIREO, *Vireo flavifrons*. Eggs, 3 or 4, oval, white, boldly marked with purplish brown spots that show lighter edges; .60 + .88 to .65 + .95. The lighter edgings to the spottings are the chief characteristics. Nests placed in trees at a moderate elevation above the ground, composed of strips of bark, grass, and pine leaves covered with lichens. Breeds in Eastern United States, from the middle districts, northward, in June.

629. BLUE-HEADED VIREO, *Vireo solitarius*. Eggs, 4 or 5, oval, white, finely and sparsely spotted with reddish and dark brown; .50 + .75 to .62 + .81. Nests composed of the usual material, and placed in trees. Breeds in Eastern United States, west to the plains, from Massachusetts, where it is rare, north into the British Provinces, in June.

629a. CASSIN'S VIREO, *Vireo solitarius cassinii*. Eggs, indistinguishable from those of No. 629. Breeds in Western United States, from the Rocky Mountains to the Pacific.

629b. PLUMBEOUS VIREO, *Vireo solitarius plumbeus*. Eggs, indistinguishable from those of No. 629. Breeds in Western United States, from the eastern base of the Rocky Mountains westward.

629c. MOUNTAIN VIREO, *Vireo solitarius alticola*. Eggs, 3 and 4, indistinguishable from those of No. 629, and the nests are similar. Breeds in the mountains of North Carolina. Described by Mr. William Brewster in the "Auk" for January, 1886.

630. BLACK-CAPPED VIREO, *Vireo atricapillus*. Eggs, 3 or 4, oval, pure white, unspotted; .50 + .65 to .56 + .76. Nests

composed of grass, leaves, etc., quite thickly felted together. Breeds in Mexico and Texas, north to Kansas, in May.

631. WHITE-EYED VIREO, *Vireo noveboracensis*. Eggs, 4 or 5, oval, white, spotted and dotted with purplish and reddish brown; $.55 + .77$ to $.65 + .80$. Nests placed low, often only a few feet above the ground, composed of the usual material. Breeds in Eastern United States, west to the Rocky Mountains, in June.

631a. KEY WEST VIREO, *Vireo noveboracensis maynardi*. Eggs, unknown, but probably indistinguishable from those of No. 631. Breeds on Key West. Described by Mr. William Brewster in the "Auk" for April, 1887.

632. HUTTON'S VIREO, *Vireo huttoni*. Eggs, 3 or 4, oval, white, minutely dotted with reddish brown; $.51 + .68$ to $.52 + .70$. Nests placed in trees, composed of vegetable fibre, grass, and bits of paper, covered with moss. Breeds in California, in June.

632a. STEPHEN'S VIREO, *Vireo huttoni stephensi*. Eggs, probably similar to those of No. 632. Breeds in Arizona, Western Mexico, and Lower California.

633. BELL'S VIREO, *Vireo bellii*. Eggs, 3 or 4, oval, white, sparingly dotted with reddish brown; $.52 + .73$ to $.56 + .76$. Nests placed in trees, composed of the usual material. Breeds in the middle portion of the United States, from Illinois and Iowa west to the eastern base of the Rocky Mountains, in June.

633a. LEAST VIREO, *Vireo bellii pusillus*. Eggs and nests, indistinguishable from those of No. 633. Breeds in Arizona and California, south to Cape Saint Lucas, in May and June.

634. GRAY VIREO, *Vireo vicinior*. Eggs, similar to those of No. 632. Breeds in Western Texas, New Mexico, Arizona, and Southern California.

FAMILY LV. — CCEREBIDÆ. HONEY-CREEPERS.

Only one species of this family occurs within our limits. Eggs, spotted, and deposited in domed nests that are placed in trees and bushes.

635. BAHAMA HONEY-CREEPER, *Cereba bahamensis*. Eggs, 3 or 4, long oval, ashy white, quite finely and profusely spotted and dotted with reddish brown; $.46 + .72$ to $.50 + .75$. Somewhat resemble those of the field sparrow. Nests placed in trees and bushes, composed of roots, vines, and fragments of palm leaves, domed, but rather gourd-shaped, with the entrance on the side. Breeds on the Bahamas, in April and May; birds occasional on the Florida Keys.

FAMILY LVI. — MNIOTILTIDÆ. WOOD-WARBLERS.

Eggs, oval or rounded oval, varying from white to bluish and greenish, rarely unspotted, and the spots, in the majority of cases, are thickest around the larger end, and deposited in nests that are placed in a variety of situations, but most generally in trees or bushes, sometimes on the ground, and rarely in holes of trees.

636. BLACK AND WHITE WARBLER, *Mniotilta varia*. Eggs, 4 to 6, oval, creamy white, profusely spotted and dotted with reddish brown; $.65 + .70$ to $.69 + .75$. Nests placed on the ground, composed of grass and leaves. Breeds in Eastern United States, west to the plains, from the south middle sections north to the British Provinces, in April in the South, May in the Middle States, and in June in the North.

637. PROTHONOTARY WARBLER, *Protonotaria citrea*. (Type, Plate X.) Eggs, 5, 6, or 7, sometimes 4, very rarely 8, rounded oval, polished, creamy, profusely spotted and blotched all over with purplish brown and lilac; $.55 + .70$ to $.52 + .68$. Distinguished by the rounded oval form, polished surface, and bold markings. Nests placed in natural cavities of trees, or in the deserted nests of woodpeckers, titmice, etc.; composed of grass, weeds, and moss. Breeds in Eastern United States,

excepting perhaps the more northern sections and New England, in May and June.

638. SWAINSON'S WARBLER, *Helinaia swainsonii*. Eggs, 3 or 4, oval, pure white, usually unspotted, but rarely slightly dotted on larger end; $.52 + .68$ to $.62 + .79$. Nests placed in grass, composed of grass and weeds. Breeds in South Carolina and the Gulf States, in May, June, and July.

639. WORM-EATING WARBLER, *Helminthus vermivorus*. Eggs, 4 or 5, oval, white, spotted and blotched with reddish brown over the entire surface; $.56 + .70$ to $.60 + .78$. Nests placed on the ground, loosely constructed, composed of grass, leaves, etc. Eggs bear a striking resemblance to those of the great Carolina wren. Breeds in Eastern United States, north to Southern New York and Southern New England, in May and June.

640. BACHMAN'S WARBLER, *Helminthophila bachmani*. A set of eggs described by Mr. Bailey in the "Bulletin of the Nuttall Ornithological Club" for January, 1883, are given as 4, dull white, with a wreath of dark brown covering nearly one-third of the larger end, and with a few obscure spots of lilac scattered over the rest of the surface; $.74 + .60$. The nest is said to be placed in low trees. The identification is not positive. Breeds in Louisiana, and possibly the other Gulf States, and South Carolina.

641. BLUE-WINGED WARBLER, *Helminthophila pinus*. Eggs, 3, 4, or 5, oval, white, sprinkled with a few reddish spots on the larger end; $.50 + .68$ to $.53 + .70$. Nests placed on the ground, composed of bark, leaves, etc. Breeds from Southern New York and Southern New England southward, in May.

642. GOLDEN-WINGED WARBLER, *Helminthophila chrysop-tera*. Eggs, 4 or 5, and not distinguishable from those of No. 641. Nests placed on the ground, composed of grass, leaves, etc. Breeds in Eastern United States, from Massachusetts and New York southward, in May and June.

643. LUCY'S WARBLER, *Helminthophila luciae*. Eggs, 3 or 4, oval, white, handsomely wreathed about the larger end with spots of reddish brown and umber, with a few dots scattered over the surface; $.46 + .58$ to $.47 + .60$. Nests placed in holes of trees, cavities behind loosened bark, etc., composed of twigs, weed stalks, lined with horse-hair and feathers. Breeds in the valleys of the Colorado and Gila Rivers in Arizona and California, in May.

644. VIRGINIA'S WARBLER, *Helminthophila virginiae*. Eggs, 3 or 4, oval or rounded oval, marked about the larger end with a ring of spots and dots of purplish brown and lilac; $.62 + .45$ to $.47 + .64$. Nests placed on the ground, composed of strips of bark, grasses, and mosses, lined with hair. Breeds in the Rocky Mountain region of the United States, from Colorado, Utah, and Nevada southward, in June.

645. NASHVILLE WARBLER, *Helminthophila ruficapilla*. Eggs, 3, 4, or 5, oval, white, finely spotted over the entire surface with purplish brown, and these occasionally form a ring around the larger end; $.48 + .56$ to $.45 + .59$. Nests placed on the ground, composed of strips of bark, grass, etc. Breeds in Eastern North America, from Massachusetts north to the fur countries, in June.

645a. CALAVERAS WARBLER, *Helminthophila ruficapilla gutturalis*. Eggs, probably indistinguishable from those of No. 645. Breeds in Western United States, from the Rocky Mountains to the Pacific.

646. ORANGE-CROWNED WARBLER, *Helminthophila celata*. Eggs, 4 to 6, white, spotted and dotted with reddish and purplish brown; $.45 + .60$ to $.50 + .70$. Nests placed on the ground, composed of grass, weeds, etc. Breeds in Eastern North America, excepting New England and the Eastern Middle States, north to the Yukon and Mackenzie River district, and southward through the Rocky Mountains, in May and June.

646a. LUTESCENT WARBLER, *Helminthophila celata lutes-*

cens. Eggs, 3 to 6, indistinguishable from those of No. 646. Breeds in extreme Western United States.

647. TENNESSEE WARBLER, *Helminthophila peregrina*. Eggs, unknown. Breeds in Eastern North America, from Northern New York and Northern New England north to Hudson's Bay Territory.

648. PARULA WARBLER, *Compsothlypis americana*. Eggs, 4 or 5, rarely 6 or 7, oval, white, spotted and dotted with reddish brown, purplish, and lilac; $.50 + .63$ to $.52 + .65$. Nests placed in trees, which are covered with long moss, of which they are composed. Breeds in Eastern United States, west to the plains, north to Canada, in June.

649. SENNETT'S WARBLER, *Compsothlypis nigrilora*. Eggs and nests similar to those of No. 648. Breeds in the valley of the Lower Rio Grande, in Texas.

650. CAPE MAY WARBLER, *Dendroica tigrina*. Eggs, 3 or 4, oval, white, spotted and blotched, chiefly about the larger end, with purple and brown of varying tints; $.52 + .68$ to $.55 + .70$. Nests placed in trees, composed of strips of bark, moss, etc. Breeds in Eastern North America, from Northern New England north to Hudson's Bay Territory, in June; also in Jamaica and probably the Bahamas.

651. OLIVE WARBLER, *Dendroica olivacea*. Eggs, undescribed. Breeds in Southern New Mexico, Arizona, Mexico, and Guatemala.

652. YELLOW WARBLER, *Dendroica aestiva*. (Type, Plate IX.) Eggs, 3, 4, or 5, oval, blotched, spotted and dotted with varying shades of purple, brown, and lilac; $.49 + .61$ to $.52 + .70$. Nests placed on trees and bushes, composed of the hempen fibres of plants, the outer covering of ferns, lined with cotton down, etc. Breeds in Eastern North America, west to the plains, south to the Southern States, in May and June.

652a. SONORA YELLOW WARBLER, *Dendroica aestiva sonora*. Eggs, probably indistinguishable from those of No.

652. Breeds in Southern Arizona, Western Texas, and Northwestern Mexico. Described by Brewster in "Auk" for April, 1888.

653. MANGROVE WARBLER, *Dendroica bryanti castaneiceps*. Eggs, unknown, but probably similar to those of No. 652. Breeds in Western Mexico and Cape Saint Lucas, Lower California.

654. BLACK-THROATED BLUE WARBLER, *Dendroica caerulescens*. Eggs, 4 or 5, oval, ashy white, spotted and blotched with brown and lilac of varying shades; $.47 + .61$ to $.50 + .66$. Nests placed in bushes, composed of strips of bark, twigs, and roots, lined with fine rootlets and hair. Breeds in Eastern North America, from New England (where it is rare in the southern portions) and Northern New York, northward, in June.

655. YELLOW-RUMPED MYRTLE WARBLER, *Dendroica coronata*. Eggs, 3 or 4, more uncommonly 5, oval, white, blotched and spotted, usually in a ring around the larger end, with brown and purple of varying shades; $.50 + .73$ to $.55 + .80$. The prominent ring and feather lining to the nest usually characterize this species. Nests placed in low hemlocks or spruces, composed of twigs, lined with feathers. Breeds in Eastern North America, from Northern United States northward, in June.

656. AUDUBON'S WARBLER, *Dendroica auduboni*. Eggs, 4, oval, pinkish white, finely but sparingly spotted with reddish brown; $.50 + .70$ to $.52 + .73$. Nests placed in bushes, composed of strips of bark, leaves of grasses, and other material. Breeds in Western North America, north to Vancouver's Island, in June and July.

657. MAGNOLIA WARBLER, *Dendroica maculosa*. Eggs, 3 and 4, rarely 5, oval, ashy white, spotted and blotched, usually in a ring around the larger end, with brown and lilac of varying shades. The prevalent lilac shade of the spottings and ring is a noticeable characteristic; $.50 + .65$ to $.53 + .67$. Nests placed in low trees or bushes, composed of twigs, and

lined with black horse-hair and rootlets. Breeds in Eastern North America, from Northern New England, Northern New York, and Northern Michigan, to Hudson's Bay territory, in June.

658. CERULEAN WARBLER, *Dendroica cærulea*. Eggs, 3 or 4, varying from bluish to creamy white, thickly blotched, chiefly on the larger end, with reddish brown; $.45 + .60$ to $.53 + .69$. Nests placed in low trees, composed of dried grasses and strips of bark. Breeds in Eastern United States, from Central New York and the Alleghanies west to the plains, and from Southern Canada southward, in June.

659. CHESTNUT-SIDED WARBLER, *Dendroica pennsylvanica*. Eggs, usually 4, sometimes 3, rarely 5, oval, white, spotted and blotched, usually about the larger end, with varying shades of brown and lilac; $.46 + .63$ to $.49 + .65$. Distinguished from No. 613 by the white color. Nests placed in bushes, composed of hempen fibres of plants, fern, moss, etc. Breeds in Eastern United States and Southern Canada west to the plains, and south to Central Illinois, and along the mountain ranges farther south, in June.

660. BAY-BREASTED WARBLER, *Dendroica castanea*. Eggs, 4 to 6, oval, bluish green, spotted and blotched, usually in a ring around the larger end, with reddish brown and lilac; $.50 + .65$ to $.53 + .71$. The eggs of this and No. 661 are distinguished by the large size. Nests placed in large trees, composed of twigs and moss, lined with moss, rootlets, and hair. Breeds in Eastern North America, from Northern New England and Northern Michigan, north to Hudson's Bay, in June.

661. BLACK-POLL WARBLER. Eggs, 3, 4, or 5, rarely 6, oval, white, blotched and dotted profusely with purple, brown, and lavender; $.50 + .72$ to $.52 + .74$. Nests placed in bushes, or rarely on the ground, composed of twigs and rootlets, lined with fine grass and straw. Breeds in Eastern North America, from Northern New England, Grand Manan, north to Greenland and the Barren Ground, in June.

662. BLACKBURNIAN WARBLER, *Dendroica blackburniæ*. Eggs, 3 or 4, oval, pale greenish white, spotted and blotched, usually around the larger end, with brown and lilac of varying shades; $.44 + .63$ to $.45 + .65$. Nests placed in trees, composed of strips of bark, lined with feathers and hair. Breeds in Eastern North America, west to the plains, from Northern New England northward, and along the Alleghanies to Pennsylvania, in May.

663. YELLOW-THROATED WARBLER, *Dendroica dominica*. Eggs, 3, 4, or rarely 5, oval, varying from greenish to ashy white, finely dotted and spotted, mainly around the larger end, with dark brown and purple; $.51 + .70$ to $.53 + .76$. Distinguished by the fine markings. Nests composed of Spanish moss, and pensile, but are sometimes flat and open, composed of bark, grass, etc., and lined with feathers. Breeds in Southeastern United States, from the Middle States southward, and in the Bahamas, in April and May.

663a. SYCAMORE WARBLER, *Dendroica dominica albilora*. Eggs, probably not to be distinguished from those of No. 663. Breeds in the Mississippi Valley, west to the plains, and north to Lake Erie and Southern Michigan.

664. GRACE'S WARBLER, *Dendroica graciae*. Eggs, undescribed. Breeds in Southern New Mexico, Arizona, and southward.

665. BLACK-THROATED GRAY WARBLER, *Dendroica nigrescens*. Eggs, 3 or 4, white or creamy, spotted, mainly on the larger end, with reddish brown, umber, and lilac; $.49 + .60$ to $.50 + .61$. Breeds in Western United States, north to Colorado and Oregon.

666. GOLDEN-CHEEKED WARBLER, *Dendroica chrysoparia*. Eggs, 4, oval, white, spotted and dotted, not coarsely, with reddish brown and lilac; $.52 + .73$ to $.55 + .75$. Nests placed in cedar-trees, composed of strips of cedar bark fastened with spider's webs, lined with feathers or hair. Breeds from Central Texas southward.

667. BLACK-THROATED GREEN WARBLER, *Dendroica virens*. Eggs, 4, oval, white, blotched over the entire surface with brown and purple of varying shades; $.50 + .70$ to $.52 + .73$. Nests placed in high pines or bushes, composed of twigs, grasses, fibrous stems of plants, lined with downy substances. Breeds in Eastern North America west to the plains, from New England northward to Hudson's Bay, in June.

668. TOWNSEND'S WARBLER, *Dendroica townsendi*. Eggs, 4, creamy white, spotted around the larger end with brown, umber, and lilac; $.50 + .60$ to $.51 + .61$. Nests placed in trees, composed of the hempen fibres of plants, fine twigs, and lichens, lined with soft bark and hair. Breeds in Western North America, from Sitka southward, east to Western Colorado, in June.

669. HERMIT WARBLER, *Dendroica occidentalis*. Eggs, 4, ashy white, spotted and blotched with brown, umber, and lilac; $.50 + .60$ to $.51 + .61$. Nests placed in trees. Breeds in Western United States, from the Rocky Mountains to the Pacific coast, and from Washington Territory southward, in June.

670. KIRTLAND'S WARBLER, *Dendroica kirtlandi*. Eggs and general breeding ground, unknown, although it may occasionally nest in Michigan and other States of this region.

671. PINE WARBLER, *Dendroica vigorsii*. Eggs, 3, 4, or 5, oval, bluish white, finely dotted and blotched with dark purplish brown and lilac; $.53 + .70$ to $.55 + .72$. The bluish tinting is a characteristic feature. Nests placed in trees, usually pines, composed of bark, leaves, etc., lined with feathers and hair. Breeds in Eastern United States, west to the plains, and from Florida north to Ontario and New Brunswick; in March in the Carolinas and southward, in May in Massachusetts, also on the Bahamas.

672. PALM WARBLER, *Dendroica palmarum*. Eggs, 4, oval, creamy white, spotted and blotched, usually about the larger end, with purple, lilac, and reddish brown. The reddish and

purplish markings are permanent characteristics; $.52 + .75$ to $.55 + .70$. Nests placed on the ground, composed of grass, bark, and mosses. Breeds in the northern interior, to Great Slave Lake, in June.

672a. YELLOW PALM WARBLER, *Dendroica palmarum hypochrysea*. Eggs and nests indistinguishable from those of No. 672. Breeds from Nova Scotia and New Brunswick, north to Hudson's Bay, in June.

673. PRAIRIE WARBLER, *Dendroica discolor*. Eggs, usually 4, sometimes 3 or 5, rarely 6, oval, white, spotted and blotched with lilac, purple, and brown; $.45 + .65$ to $.48 + .68$. Nests placed in bushes, composed of flax-like fibres of plants, fine strips of bark, lined with downy material and feathers. Breeds in Eastern United States, west to the plains, from Michigan, southward, in June.

674. OVEN BIRD, *Seiurus aurocapillus*. (Type, Plate IX.) Eggs, 5 or 6, oval, creamy white, spotted and blotched, usually more thickly about the larger end, with reddish brown and lilac, and these often form a crown around the larger end; $.52 + .80$ to $.55 + .82$. Nests placed on the ground, composed of leaves, grass, usually globular. Breeds in Eastern North America, from Kansas, Iowa, the Ohio Valley, and Virginia, north to Hudson's Bay Territory and Alaska, in May and June.

675. WATER THRUSH, *Seiurus noveboracensis*. Eggs, 4 to 6, white, spotted and blotched, usually more thickly on the larger end, where they often form a ring, with reddish brown, purple, and lilac; $.65 + .81$ to $.69 + .87$. The purplish and lilac markings are quite characteristic. Nests placed on the ground, composed of leaves and moss, lined with fine moss and rootlets. Breeds in Eastern United States, but confined to the Northern States north to Arctic America, in June.

675a. GRINNELL'S WATER THRUSH, *Seiurus noveboracensis notabilis*. Eggs, probably indistinguishable from those of No. 675. Breeds in the United States, from Illinois west to California, north into British America.

676. LOUISIANA WATER THRUSH, *Seiurus motacilla*. Eggs, usually 5, often 4, and sometimes 6, rounded oval, creamy white, spotted and blotched, usually more thickly on the larger end, where there is often a ring, with brown and lilac of varying shades; $.60 + .71$ to $.64 + .78$. Nests placed on the ground or among the roots of fallen trees, composed of leaves, moss, grass, etc., lined with fine grass and hair. Breeds in Eastern United States, north to Southern New England and Michigan, west to the plains.

677. KENTUCKY WARBLER, *Geothlypis formosa*. Eggs, 4 or 5, oval, white, finely spotted and dotted with reddish brown, but more abundantly on the larger end; $.53 + .65$ to $.56 + .70$. Nests usually placed on the ground, — bulky structures, composed of leaves, rootlets, and grass. Breeds in Eastern United States, west to the plains, and north to Southern New England and Southern Michigan, but rare in the northeastern section.

678. CONNECTICUT WARBLER, *Geothlypis agilis*. Eggs, 4 to 5, creamy white, or white dotted and spotted with reddish brown and lilac; $.53 + .75$ to $.54 + .76$. Nests placed on the ground, in swampy locations, composed of roots, leaves, etc., compactly arranged. Breeds in Eastern North America, north of the United States.

679. MOURNING WARBLER, *Geothlypis philadelphia*. Eggs, 4 or 5, oblong, oval, pinkish white, blotched and dotted with purplish brown; $.53 + .73$ to $.55 + .75$. Nests placed on the ground or near it, composed of leaves and grass lined with finer material. Breeds in Eastern North America, west to the plains, from the mountainous portions of Pennsylvania, New England, New York, and Northern Michigan, northward, in June.

680. MACGILLIVRAY'S WARBLER, *Geothlypis macgillivrayi*. Eggs, 4, oval, pinkish white, spotted and blotched with purple, lilac, reddish and very dark brown; $.50 + .75$ to $.52 + .78$. Nests placed on the ground or near it, composed of strips of bark, roots, and grasses. Breeds in Western United States,

from the eastern foothills of the Rocky Mountains to the Pacific coast, north into British Columbia, in June.

681. MARYLAND YELLOW-THROAT, *Geothlypis trichas*. Eggs, sometimes 3, usually 4 or 5, rarely 6, oval, varying from white to creamy, spotted, blotched, and lined with brown and lilac of two or three shades; $.53 + .68$ to $.67 + .85$. Nests placed on the ground or near it, composed of leaves, grass, etc., lined with fine grass and hair. Breeds in Eastern United States, mainly east of the Alleghanies, from Florida north to Nova Scotia and Ontario, in May and June.

681a. WESTERN YELLOW-THROAT, *Geothlypis trichas occidentalis*. Eggs and nests, indistinguishable from those of No. 681. Breeds in the United States, from the Mississippi Valley west to the Pacific.

682. BELDING'S YELLOW-THROAT, *Geothlypis beldingi*. Eggs, unknown. Breeds in Lower California.

683. YELLOW-BREASTED CHAT, *Icteria virens*. Eggs, usually 4, often 3, and rarely 5, oval, glossy white, spotted and blotched with reddish brown and lilac, often more thickly on the larger end, where there is sometimes a ring; $.65 + .85$ to $.70 + .95$. Closely resemble those of No. 674. Nests placed in bushes, composed of coarse grasses, leaves, and the stems of plants, lined with finer material. Breeds in Eastern United States west to the plains, from Georgia north to Ontario and Massachusetts, where it is locally distributed.

683a. LONG-TAILED CHAT, *Icteria virens longicauda*. Eggs and nests indistinguishable from those of No. 683, and breeds in Western United States, from the plains to the Pacific.

684. HOODED WARBLER, *Sylvania mitrata*. Eggs, usually 4, sometimes 3, rarely 5, oval, white, finely dotted and marked with reddish and pale purple; $.45 + .65$ to $.50 + .70$. Nests placed not far from the ground, composed of leaves and grass, lined with fine grass and horse-hair. Breeds in Eastern United States, west to the plains, north and east to Michigan, Southern New York, and Southern New England.

685. WILSON'S WARBLER, *Sylvania pusilla*. Eggs, 4, oval, dull white, dotted with reddish and brown, usually on the larger end, where there is often a ring; $.48 + .63$ to $.50 + .65$. Nests placed in trees, composed of twigs and mosses, lined with finer material. Breeds in Eastern North America to the Rocky Mountains, including them, from the northern border of the United States north to Hudson's Bay territory and Alaska.

685a. PILEOLATED WARBLER, *Sylvania pusilla pileolata*. Eggs, similar to those of No. 685. Breeds in Western North America, from the Great Basin to the Pacific, north to Alaska.

686. CANADIAN WARBLER, *Sylvania canadensis*. Eggs, 4 or 5, oval, white, marked with lilac and brown of varying shades; $.48 + .60$ to $.55 + .70$. Nests placed on the ground, in swampy locations, composed of grass, leaves, rootlets, etc., lined with finer material. Breeds in Eastern North America, westward to the plains, and north to Newfoundland, Southern Labrador, and Lake Winnipeg, and south, rarely, to Massachusetts, in June.

687. AMERICAN REDSTART, *Setophaga ruticilla*. Eggs, usually 4, sometimes 3 and 5, oval, ashy white, spotted over the entire surface, but usually more thickly on the larger end, with lilac, yellowish, and pale brown; $.48 + .60$ to $.50 + .65$. Distinguished from those of No. 652, which they somewhat resemble, by the general grayer tinting. Nests placed in trees, composed of hemp-like fibres of plants, strips of bark, weed stalks, and feathers. Breeds in North America, north to Fort Simpson, west to the Great Basins, and south to the middle districts, in June.

688. PAINTED REDSTART, *Setophaga picta*. Eggs, 3 or 4, oval, white, delicately spotted with pale reddish brown, sparsely distributed over the entire surface, and forming a ring around the larger end; $.49 + .64$ to $.50 + .66$. Nests placed under projecting stones on the banks of streams, composed of bark, the coarse fibres from weed stalks, and fine grasses. Breeds in Southern Arizona, south through Mexico, in May.

689. RED-BELLIED REDSTART, *Setophaga miniata*. Eggs, unknown. Extralimital; breeds in Mexico and Guatemala. Bird accidental in Texas.

690. RED-FACED WARBLER, *Cardellina rubrifrons*. Eggs, 4, ashy white, spotted, blotched, and dotted around the larger end with purplish and paler lavender; $.50 + .66$ to $.50 + .67$. Nests placed on the ground, composed of leaves and fine bark. Breeds in Southern Arizona, through Mexico to Guatemala. Bird accidental in Texas, and is thus extralimital.

691. RED WARBLER, *Ergaticus ruber*. Eggs, undescribed. Breeds in Mexico. Bird accidental in Texas, thus is extralimital.

692. BRASHER'S WARBLER, *Basileuterus culicivorus*. Eggs, undescribed. Extralimital; breeds in Mexico and Central America. Bird accidental in Texas.

693. BELL'S WARBLER, *Basileuterus belli*. Eggs, undescribed. Extralimital; breeds in Mexico and Guatemala. Bird accidental in Texas.

FAMILY LVII. — MOTACILLIDÆ. WAGTAILS.

Eggs, usually profusely spotted, often so thickly as to obscure the ground color, and are deposited in nests that are placed on the ground, composed of leaves, grass, or other convenient material.

694. WHITE WAGTAIL, *Motacilla alba*. Eggs, 4 to 6, oval, grayish white, thickly dotted with ashy and black; $.55 + .75$ to $.59 + .79$. Breeds in Northern Europe and Northern Asia. Bird accidental in Greenland, and is thus extralimital.

695. SWINHOE'S WAGTAIL, *Motacilla ocularis*. Eggs, undescribed. Extralimital; breeds in Northeastern Siberia. Bird accidental in Lower California.

696. SIBERIAN YELLOW WAGTAIL, *Budytes flavus leucostriatus*. Eggs, 4 to 7, ashy white to brownish, thickly spotted and blotched over the entire surface with brown of varying shades; $.54 + .75$ to $.55 + .76$. Nests placed on the ground,

composed of grass, leaves, etc. Extralimital; breeds in Alaska and Northern Siberia, south to China.

697. AMERICAN PIPIT, *Anthus pensilvanicus*. Eggs, 4 to 6, oval, light brown, thickly spotted with chocolate brown; $.62 + .75$ to $.64 + .78$. Breeds in North America, north of the United States, and southward along the higher parts of the Rocky Mountains, in June.

698. MEADOW PIPIT, *Anthus pratensis*. Eggs, 5 or 6, oval, reddish brown, mottled thickly with darker brown; $.58 + .78$ to $.60 + .80$. Breeds in Europe. Bird accidental in Greenland, thus is extralimital.

699. RED-THROATED PIPIT, *Anthus cervinus*. Eggs, unknown to me. Extralimital; occurs in northern parts of the Old World. Bird accidental in Lower California.

700. SPRAGUE'S PIPIT, *Anthus spragueii*. Eggs, 4 or 5, oval, dull white, minutely dotted with grayish purple; $.60 + .85$ to $.63 + .87$. Breeds in the interior plains of North America, from Central Dakota northward to the Saskatchewan district, and from the Red River westward, in June.

FAMILY LVIII.—CINCLIDÆ. DIPPERS.

Eggs, white, unspotted, deposited in nests that are globular in shape, and placed on the banks of streams.

701. AMERICAN DIPPER, *Cinclus mexicanus*. Eggs, 3 or 4, oval, white; $.65 + 1.00$ to $.70 + 1.04$. Nests composed of moss, grass, and roots, globular in form. Breeds in the mountainous parts of Central and Western North America, from the Yukon Valley and Unalaska southward, east in the United States to the eastern base of the Rocky Mountains, in April and May.

FAMILY LIX.—TROGLODYTIDÆ. WRENS, THRASHERS, ETC.

Eggs, extremely variable in color and number, deposited in nests that are also variable in structure and in situations in which they are placed.

702. SAGE THRASHER, *Oroscoptes montanus*. Eggs, 4, oval, bluish green, spotted and blotched quite coarsely with reddish brown and lilac. The peculiar bluish green color is the most noticeable character; $.73 + 1.00$ to $.75 + 1.05$. Nests placed in bushes, composed of twigs, strips of bark, and hair. Breeds in Western United States, from the western portions of the plains to the Pacific, in April and May.

703. MOCKING-BIRD, *Mimus polyglottos*. Eggs, 3 or 4, light greenish blue, spotted and blotched rather coarsely with brown of varying shades and lilac; $.69 + 1.04$ to $.81 + 1.06$. The pale ground color and rather light spottings are the most noticeable features. Nests placed in trees and bushes, composed of twigs, grass, and weeds, lined with rootlets. Breeds in the United States, from New Jersey, the valley of the Ohio, Colorado, and California, southward, in April and May.

704. CATBIRD, *Galeoscoptes carolinensis*. Eggs, 4 to 6, oval, deep greenish blue, unspotted. The shade of the greenish blue is darker than that of any other eggs that I ever saw; $.65 + .97$ to $.69 + .98$. Nests placed in bushes, composed of twigs, strips of bark, lined with rootlets. Breeds in Eastern United States and the British Provinces west to the Rocky Mountains, and including them, south to the middle districts, in June.

705. BROWN THRASHER, *Harporhynchus rufus*. (Type, Plate VIII.) Eggs, 4 or 5, rarely 6, rather elliptical, pale green, finely and profusely dotted with reddish brown; $.76 + .99$ to $.87 + 1.12$. Fine markings characterize the eggs of this and No. 707. Nests placed on the ground or in bushes, composed of twigs, strips of bark, and fibrous rootlets. Breeds in Eastern United States west to the Rocky Mountains, and from Southern Maine, Ontario, and Manitoba southward, in May and June.

706. LONG-BILLED THRASHER, *Harporhynchus longirostris semnetti*. Eggs and nests, indistinguishable from those of No. 705. Breeds in Eastern Mexico north to the valley of the Rio Grande, in Texas.

707. CURVE-BILLED THRASHER, *Harporhynchus curvirostris*. Eggs, 4 or 5, oval, pale green, minutely dotted, but not thickly, with reddish brown; $.77 + 1.03$ to $.84 + 1.12$. The pale green is quite prominent, because less covered with spottings. Nests placed in bushes, composed of rootlets, lined with grass. Breeds in Eastern Mexico, north into the southern border of Texas and New Mexico, in April.

707a. PALMER'S THRASHER, *Harporhynchus curvirostris palmeri*. Eggs, 3 or 4, oval, pale green, minutely dotted with reddish brown; $.82 + 1.05$ to $.83 + 1.09$. Nests placed at an elevation from the ground, composed of twigs, and lined with grass. Breeds in Southern Arizona, in June.

708. BENDIRE'S THRASHER, *Harporhynchus bendirei*. Eggs, 3 or 4, greenish white, faintly marked with drab, reddish brown, and lavender, more numerous on the larger end. The chief characteristics are the pale spottings. Nests placed in bushes, composed of vegetable fibres and grass, outside which are twigs. Breeds in Southern Arizona, south into Mexico, in March, April, May, and June.

709. SAINT LUCAS THRASHER, *Harporhynchus cinereus*. Eggs, 3 or 4, oval, greenish white, spotted and blotched profusely with purple and brown; $.77 + 1.12$ to $.79 + 1.13$. The profuse markings are the most noticeable features. Nests placed in bushes, composed of twigs, grass, etc. Breeds in Lower California, in March, April, May, and June.

710. CALIFORNIA THRASHER, *Harporhynchus redivivus*. Eggs, 3 or 4, oval, pale bluish green, spotted and blotched, rather sparingly, with reddish brown; $.81 + 1.19$ to $.93 + 1.20$. The large spottings are remarkable. Nests placed in bushes, composed of twigs, rootlets, and grass. Breeds in the coast region of California and Lower California, in May and June.

711. LECONTE'S THRASHER, *Harporhynchus lecontei*. Eggs similar in number, color, and size to those of No. 710, and the nests and nesting habits are also similar. Breeds in the valleys of the Gila and Lower Colorado Rivers, south into Sonora.

712. CRISSAL THRASHER, *Harporhynchus crissalis*. Eggs, 3 or 4, oval, bluish green, unspotted; $.75 + 1.08$ to $.76 + 1.14$. The unspotted egg is remarkable in a member of this group. Nests similar to those of other Thrashers that breed in the same region. Breeds in Southwestern United States, from New Mexico to Utah and Southern California, in May.

713. CACTUS WREN, *Campylorhynchus brunneicapillus*. Eggs, 4 to 6, oval, white, but so covered with salmon-colored dots as to nearly conceal the ground color; $.65 + 1.00$ to $.68 + 1.02$. The general salmon-colored effect is characteristic. Nests composed of grass neatly woven into a purse-shaped pouch, and placed flat on the stems of cacti. Breeds in the southern border of the United States, from Texas to Southern California, and south into Northern Mexico, in May.

714. SAINT LUCAS CACTUS WREN, *Campylorhynchus affinis*. Eggs and nests, indistinguishable from those of No. 713. There is a coarse type of markings that is, perhaps, oftener assumed by these than by those of No. 713. Breeds in Lower California.

715. ROCK WREN, *Salpinctes obsoletus*. Eggs, 6 to 7, oval, white, sparingly spotted, chiefly on the larger end, with brownish red; $.60 + .75$ to $.66 + .77$. The general light color is one chief characteristic. Nests placed in holes of rocks or in buildings, composed of grass, feathers, etc. Breeds in Western United States, from the western border of the plains to the Pacific.

716. GUADALUPE ROCK WREN, *Salpinctes guadeloupensis*. Eggs, probably indistinguishable from those of No. 715. Breeds on Guadalupe Island, Lower California.

717. WHITE-THROATED WREN, *Catherpes mexicanus*. Eggs, probably similar to those of No. 717a. Extralimital; breeds in Mexico; bird accidental in Texas.

717a. CAÑON WREN, *Catherpes mexicanus conspersus*. Eggs, 5 or 6, oval, white, sparingly spotted, dotted, and blotched with pale reddish brown, the markings being more

numerous on the larger end; $.52 + .73$ to $.55 + .75$. The very pale colors separate them from those of No. 715. Nests placed in holes of rocky cliffs, composed of twigs, down, and feathers. Breeds in Southwestern United States, from Western Texas and Colorado to the Pacific, in June.

717*b*. DOTTED CAÑON WREN, *Catherpes mexicanus punctulatus*. Eggs, probably indistinguishable from those of No. 717, and the nests and nesting habits are similar. Breeds in California, Lower California, Arizona, and New Mexico.

718. CAROLINA WREN, *Thryothorus ludovicianus*. Eggs, 5 or 6, oval, creamy white, spotted and blotched irregularly with reddish brown and lilac; $.56 + .75$ to $.60 + .80$. Nests composed of the fibrous substance that grows at the base of the palmetto fronds, leaves, or twigs, lined with fine material. Breeds in Eastern United States, north to Pennsylvania, west to the plains, in April and May.

718*a*. FLORIDA WREN, *Thryothorus ludovicianus miamensis*. Eggs, indistinguishable from those of No. 718. Breeds in Southern Florida, in April.

719. BEWICK'S WREN, *Thryothorus bewickii*. Eggs, 4 to 6, oval, white, spotted and dotted with reddish brown and lilac; $.50 + .67$ to $.55 + .70$. The white ground color separates them from those of No. 718, which are creamy. Nests placed in holes of trees or in crevices in rocks, buildings, etc. Composed of twigs, grass, etc., lined with feathers. Breeds in Eastern United States, from Georgia north to New Jersey and Minnesota, west to Eastern Texas and the eastern border of the plains, in May.

719*a*. VIGOR'S WREN, *Thryothorus bewickii spilurus*. Eggs, similar to those of No. 719. Breeds in the Pacific coast region of North America, from British Columbia southward to Lower California and Western Mexico.

719*b*. BAIRD'S WREN, *Thryothorus bewickii bairdi*. Eggs, similar to those of No. 719. Breeds in Southern Texas and Arizona, north to Middle Kansas, Colorado, and Southern Utah.

720. GUADALUPE WREN, *Thryothorus brevicaudus*. Eggs, undescribed. Breeds on Guadalupe Island, Lower California.

721. HOUSE WREN, *Troglodytes ædon*. Eggs, 6 or 7, oval, pinkish white, spotted and dotted with reddish brown, often so thickly as to cover the surface; .50 + .70 to .53 + .75. The general reddish effect is a striking peculiarity. Nests placed in holes of trees, in martin boxes, crevices in buildings, etc., composed of twigs, grass, etc., lined with feathers. Breeds in Eastern United States and Southern Canada, west to Indiana and Louisiana, in June.

721a. PARKMAN'S WREN, *Troglodytes ædon parkmanii*. Eggs and nests, similar to those of No. 721. Breeds in Western North America, from Texas, Illinois, Minnesota, and Manitoba, westward; north to Great Slave Lake, south to Mexico and Lower California.

721b. WESTERN HOUSE WREN, *Troglodytes ædon aztecus*. Eggs, indistinguishable from those of No. 721, and the nests and nesting habits are similar. Breeds in Western United States, except Pacific coast, east as far as Illinois. Separated by Allen in "Auk" for April, 1888.

722. WINTER WREN, *Troglodytes hiemalis*. Eggs, 5 to 7, oval, white, rather sparsely dotted with reddish brown, the markings usually being thickest on the larger end; .45 + .65 to .48 + .68. The white ground color and generally sparse markings are the chief characteristics. Nests, compact globes of green moss, strengthened by a few twigs, with the narrow entrance on the side, placed on the ground. Breeds in Eastern North America, from the northern parts of the United States northward, in June.

722a. WESTERN WINTER WREN, *Troglodytes hiemalis pacificus*. Eggs, probably indistinguishable from those of No. 722. Breeds on the Pacific coast, from Sitka to Southern California.

723. ALASKAN WREN, *Troglodytes alascensis*. Eggs, 7 to 12, white, minutely and sparsely dotted with reddish. Nests

placed in holes of rocks, composed of moss, roots, and feathers. Breeds in the Aleutian and Prybilof Islands, Alaska.

724. SHORT-BILLED MARSH WREN, *Cistothorus stellaris*. Eggs, 4 to 6, short oval, white, unspotted; .50 + .60 to .55 + .75. The white color and rather thick polished shell and short oval separate them from other white eggs of the same size. Nests placed in grass, globular, composed of grass, woven when living, lined with fine grass. Breeds in Eastern United States and Southern British Provinces, south to the middle districts, and west to the plains, in July.

725. LONG-BILLED MARSH WREN, *Cistothorus palustris*. (Type, Plate VIII.) Eggs, 5 to 7, short oval, pale brown, thickly spotted and dotted with a darker shade of the same, often so thickly as to cover the entire surface; .50 + .60 to .55 + .70. Nests placed in grass, reeds, or occasionally in bushes, composed of grass, reeds, etc., woven into a globular form. Breeds in Southern British America and the United States, in June.

725a. TULE WREN, *Cistothorus palustris paludicola*. Eggs, indistinguishable from those of No. 721, and the nests and nesting habits are similar. Breeds in Western United States, east to the Rocky Mountains.

725b. MARIAN'S MARSH WREN, *Cistothorus marianæ*. I have never seen the eggs. Breeds in the vicinity of Tarpon Springs, Florida.

FAMILY LX.—CERTHIIDÆ. CREEPERS.

Eggs, spotted, and deposited in nests that are placed either in holes of trees, or oftener behind loosened strips of bark.

726. BROWN CREEPER, *Certhia familiaris americana*. Eggs, 4 to 6, rather elliptical, white, spotted and dotted with reddish brown; .50 + .70 to .52 + .73. Fine markings are characteristic. Nests placed behind loose strips of bark, composed of grass, moss, etc. Breeds throughout North America,

from Northern United States northward, and along the mountain ranges farther southward, in June.

726a. MEXICAN CREEPER, *Certhia familiaris mexicana*. Eggs, probably indistinguishable from those of No. 726. Breeds in Southern Arizona southward.

726b. ROCKY MOUNTAIN CREEPER, *Certhia familiaris montana*. Eggs, probably similar to those of No. 726. Breeds in the Rocky Mountains, from Northern Mexico to Alaska.

726c. CALIFORNIA CREEPER, *Certhia familiaris occidentalis*. Eggs, probably similar to those of No. 726. Breeds on the Pacific coast, from California to Southern Alaska.

FAMILY LXI. — PARIDÆ. NUTHATCHES and TITS.

Eggs, usually white and spotted, deposited in nests that are placed in holes which are excavated by the birds.

727. WHITE-BREASTED NUTHATCH, *Sitta carolinensis*. Eggs, 4 to 6, oval, creamy white, spotted and blotched irregularly with reddish brown and lilac, often forming a ring around the larger end; $.57 + .70$ to $.60 + .83$. Nests placed in holes of trees, composed of grass, lined with hair and feathers. Breeds in the Southern British Provinces and Eastern United States to the Rocky Mountains, in June.

727a. SLENDER-BILLED NUTHATCH, *Sitta carolinensis aculeata*. Eggs, indistinguishable from those of No. 727. Breeds in Western North America, east to the plains and south into Mexico.

728. RED-BREASTED NUTHATCH, *Sitta canadensis*. Eggs, 5 or 6, oval, spotted and dotted with reddish brown; $.50 + .60$ to $.55 + .64$. Nests placed in holes, composed of fine grass. Breeds in North America, from the Northern United States northward, in June.

729. BROWN-HEADED NUTHATCH, *Sitta pusilla*. Eggs, 4 to 6, oval, white, spotted and dotted with reddish brown and lilac; $.45 + .60$ to $.51 + .63$. Nests placed in holes, composed

of the soft fibrous substances which grow at the base of the fronds of the saw palmetto. Breeds in the South Atlantic and Gulf States, in March and April.

730. PYGMY NUTHATCH, *Sitta pygmæa*. Eggs, 5, 6, 7, or 8, rarely 9, oval, white, spotted and dotted with reddish brown; $.47 + .60$ to $.50 + .65$. Nests placed in holes, composed of feathers, vegetable down, etc. Breeds in Western United States, from New Mexico and Colorado to Southern California, in May.

731. TUFTED TITMOUSE, *Parus bicolor*. Eggs, 6 or 7, oval, white, spotted and blotched with light reddish brown and lilac over the entire surface, but a little more thickly on the larger end; $.55 + .70$ to $.60 + .75$. Breeds in Eastern United States, west to the plains, north to Pennsylvania, in April and May.

731a. TEXAS TUFTED TITMOUSE, *Parus bicolor texensis*. Eggs, probably similar to those of No. 731. Breeds in Texas.

732. BLACK-CRESTED TITMOUSE, *Parus atricristatus*. Eggs, 5 to 7, oval, white, finely sprinkled with purplish brown; $.48 + .62$ to $.49 + .63$. Nests placed in holes of trees, composed of grass, wool, feathers, and moss. Breeds in Southeastern Texas and Eastern Mexico, in March, and again in May.

732a. CHESTNUT-FRONTED TITMOUSE, *Parus atricristatus castaneifrons*. Eggs, probably indistinguishable from those of No. 732. Breeds in Texas. This sub-species and No. 731a have recently been described by Mr. George B. Sennett in the "Auk" for January, 1887.

733. PLAIN TITMOUSE, *Parus inornatus*. Eggs, 5 to 7, oval, white, often unspotted, but frequently sparingly dotted with reddish; $.45 + .65$ to $.55 + .70$. Nests placed in holes of trees, composed of grass, feathers, etc. Breeds in California and Western Oregon.

733a. GRAY TITMOUSE, *Parus inornatus griseus*. Eggs, probably similar to those of No. 733. Breeds in New Mexico and Colorado to Arizona and Nevada.

733b. ASHY TITMOUSE, *Parus inornatus cineraceus*. Eggs probably do not differ from those of No. 733. Breeds in Lower California.

734. BRIDLED TITMOUSE, *Parus wolhoeberi*. Eggs, undescribed. Breeds in Western Texas, Southern New Mexico, Southern Arizona, and southward.

735. CHICKADEE, *Parus atricapillus*. (Type, Plate X.) Eggs, 5 to 7, oval, white, spotted and dotted with reddish brown, usually a little more thickly on the larger end; .45 + .60 to .50 + .65 Nests placed in holes, composed of soft mosses and hair felted together. Breeds in Eastern North America, north of the Potomac and Ohio Valleys, in May.

735a. LONG-TAILED CHICKADEE, *Parus atricapillus septentrionalis*. Eggs, indistinguishable from those of No. 735. Breeds in the Rocky Mountain plateau region, east to Manitoba and the plains, in May.

735b. OREGON CHICKADEE, *Parus atricapillus occidentalis*. Eggs, indistinguishable from those of No. 735. Breeds in the Pacific coast region of North America, from Northern California northward.

736. CAROLINA CHICKADEE, *Parus carolinensis*. Eggs, 5 to 8, indistinguishable from those of No. 735, but average a little smaller. Breeds in the Southeastern States, north to Pennsylvania and Illinois, west to Missouri, the Indian Territory, and Eastern Texas, in April and May.

736a. PLUMBEOUS CHICKADEE, *Parus carolinensis agilis*. Eggs, probably similar to those of No. 736. Breeds in Eastern and Central Texas. Described by Sennett in the "Auk" for January, 1888.

737. MEXICAN CHICKADEE, *Parus meridionalis*. Eggs, undescribed. Breeds in Mexico, north to Southern Arizona.

738. MOUNTAIN CHICKADEE, *Parus gambeli*. Eggs, 5 to 7, oval, white, often unspotted, but sometimes dotted more or less with reddish; .48 + .58 to .49 + .64. Nests placed in holes, composed of hair and fur, lined with soft moss. Breeds

in the mountainous parts of the Western United States, from the Rocky Mountains to the Sierra Nevada, in June.

739. SIBERIAN CHICKADEE, *Parus cinctus obtectus*. Eggs, undescribed. Breeds in Northern Alaska and Eastern Siberia.

740. HUDSONIAN CHICKADEE, *Parus hudsonicus*. Eggs, 6 to 10, oval or spherical, white, finely spotted with reddish brown; $.50 + .60$ to $.55 + .66$. Nests placed in holes, composed of hair, feathers, etc. Breeds in Northern North America, from Northern New England, Northern New York, Northern Michigan, northward in May.

740a. KOWAK CHICKADEE, *Parus hudsonicus stoneyi*. Eggs, unknown. Breeds in the valley of the Kowak River, Northwestern Alaska. Described by Ridgway in "Manual of North American Birds," 1887, p. 591.

741. CHESTNUT-BACKED CHICKADEE, *Parus rufescens*. Eggs, 5 to 7, oval, white, spotted and dotted with reddish; $.48 + .58$ to $.50 + .60$. Nests placed in holes of trees, composed of soft material. Breeds in the northwest coast region of North America, from the Columbia River northward, in May.

741a. CALIFORNIA CHICKADEE, *Parus rufescens neglectus*. Eggs, similar to those of No. 741, and the nesting habits are similar. Breeds in the coast region of the middle and southern portions of California.

742. WREN TIT, *Chamæa fasciata*. Eggs, 3 or 4, oval, pale bluish green, unspotted; $.50 + .68$ to $.52 + .70$. Nests placed in low bushes, composed of twigs, straw, and feathers. Breeds in the coast region of California, in May.

742a. PALLID WREN TIT, *Chamæa fasciata henshawi*. Eggs, indistinguishable from those of No. 742. Breeds in the interior of California, including the western slope of the Sierra Nevada.

743. BUSH TIT, *Psaltiriparus minimus*. Eggs, 7 to 9, oval, white; $.44 + .56$ to $.46 + .58$. Nests long, cylindrical, eight inches in length, composed of a cottony vegetable, covered with

lichens, lined with feathers, suspended from a limb of a tree. Breeds in the Pacific coast region, from Northern California to Washington Territory, in March and April.

743a. CALIFORNIAN BUSH TIT, *Psaltriparus minimus californicus*. Eggs and nests, similar to those of No. 743. Breeds in California, except the northern coast region, in March and April.

743b. GRINDA'S BUSH TIT, *Psaltriparus minimus grindæ*. Eggs, probably similar to those of No. 743. Breeds in Lower California.

744. LEAD-COLORED BUSH TIT, *Psaltriparus plumbeus*. Eggs, similar to those of No. 743, and the nests and nesting habits are similar. Breeds in New Mexico and Arizona, north to Eastern Oregon and Western Wyoming.

744a. SANTA RITA BUSH TIT, *Psaltriparus santaritæ*. Eggs, unknown, but probably similar to those of No. 744. Breeds in the Santa Rita Mountains, Southern Arizona. Described by Ridgway in the "Proceedings of the United States Museum," September, 1888, p. 697.

745. LLOYD'S BUSH TIT, *Psaltriparus lloydi*. Eggs, probably similar to those of No. 743. Nests, undescribed. Breeds in Western Texas, in the mountains between the Pecos River and the Rio Grande.

746. VERDIN, *Auriparus flaviceps*. Eggs, pale blue, spotted and dotted, chiefly about the larger end, with brown. Nests placed in trees, composed of thorny twigs and leaves, lined with down and feathers. Breeds in the southern border of the United States, from the valley of the Rio Grande to Arizona, Mexico, and Lower California.

FAMILY LXII. — SYLVIDÆ. WARBLERS KINGLETS AND GNATCATCHERS.

Eggs, white or bluish, spotted, variable in number, and are deposited in nests that are also variable in form, but which

are usually placed at an elevation above the ground, but sometimes on it.

747. KENNICOTT'S WILLOW WARBLER, *Phylloscopus borealis*. Eggs, undescribed, but are probably similar to those of the closely allied Willow Wren of Europe, which are 5, pinkish white, distinctly spotted and blotched with reddish brown; $.65 + .50$. Nests placed on the ground and domed. Breeds in Northeastern Asia and Alaska.

748. GOLDEN-CROWNED KINGLET, *Regulus satrapa*. Eggs, 8 to 10, oval, creamy white, minutely and somewhat obscurely dotted with slaty and brown; $.47 + .39$ to $.41 + .52$. Nests placed in trees, composed of soft moss arranged in a globular form, with the entrance on the top, and lined with feathers. Breeds in North America, in the northern and elevated parts of the United States, northward, in June.

748a. WESTERN GOLDEN-CROWNED KINGLET, *Regulus satrapa olivaceus*. Eggs, probably similar to those of No. 748. Breeds in the Pacific coast region, from California northward.

749. RUBY-CROWNED KINGLET, *Regulus calendula*. Eggs, 5 to 7, rounded oval, grayish white, faintly spotted with light brown, rather more thickly on the larger end; $.42 + .54$ to $.43 + .58$. Nests semi-pensile and purse-shaped, composed of bark and green moss, lined with feathers and hair. Breeds in North America, generally north of the United States, but south of this in the more elevated portions, in June.

750. DUSKY KINGLET, *Regulus obscurus*. Eggs, unknown. Breeds on Guadalupe Island, Lower California.

751. BLUE-GRAY GNATCATCHER, *Polioptila caerulea*. Eggs, 4 to 6, oval, bluish white, spotted and blotched irregularly with reddish brown and lilac; $.43 + .56$ to $.46 + .60$. Nests pensile, purse-shaped, composed of weed stalks, smoothly covered with lichens, and lined with feathers. Breeds in the southern and middle portions of the United States, in May.

752. PLUMBEOUS GNATCATCHER, *Polioptila plumbea*. Eggs, 4 to 6, oval, pale greenish blue, spotted with reddish brown;

.40 + .52 to .53 + .42. Nests resemble those of the Redstart. Breeds in Western Texas, Arizona, and the eastern coast of Lower California, in June.

753. BLACK-TAILED GNATCATCHER, *Poliophtila californica*. Eggs, 4, oblong oval, pale greenish white, finely dotted with reddish brown and black; .42 + .53 to .45 + .55. Nests placed in trees and bushes, composed of the hempen fibres of plants, strips of bark, etc., lined with downy material. Breeds in Southern California and Pacific coast of Lower California, in May.

FAMILY LXIII. — TURDIDÆ. THRUSHES, SOLITAIRES, STONECHATS, BLUEBIRDS, ETC.

Eggs, frequently blue or bluish green, plain or spotted, and deposited in nests that are, as a rule, placed in trees or bushes, but occasionally in holes, and sometimes on the ground.

754. TOWNSEND'S SOLITAIRE, *Myadestes townsendii*. Eggs, 3 or 4, oval, dull white, thickly spotted and blotched with reddish brown; .66 + .88 to .68 + 1.01. Nests placed on the ground, composed of grass. Breeds in Western United States, from the plains westward to the Pacific coast, in June.

755. WOOD THRUSH, *Turdus mustelinus*. Eggs, 4 or 5, oval, bluish green, unspotted; .65 + .75 to .75 + 1.05. Nests placed in bushes, composed of grass, leaves, and mud. Breeds in Eastern United States, west to the plains, north to Southern Michigan, Ontario, and Massachusetts, in May and June.

756. WILSON'S THRUSH, *Turdus fuscescens*. (Type, Plate VIII.) Eggs, 3 or 4, sometimes 5, oval, bluish green, unspotted, or rarely faintly marked with reddish; .60 + .90 to .70 + .95. Nests placed on the ground, or rarely in trees or bushes, composed of leaves, bark, and grasses, lined with rootlets. Breeds in Eastern United States, west to the plains, north to Manitoba, Ontario, Anticosti, and Newfoundland, south to the middle districts, in May and June.

756a. WILLOW THRUSH, *Turdus fuscescens salicicolus*. Eggs, indistinguishable from those of No. 756. Breeds in the Rocky Mountain region of the United States, east to Dakota.

757. GRAY-CHEEKED THRUSH, *Turdus aliciae*. Eggs, 4, oval, bright greenish blue, spotted and blotched with reddish and yellowish brown; $.62 + .88$ to $.64 + .92$. Nests usually placed on the limbs of trees, but occasionally on the ground, composed of grass, leaves, and strips of bark, occasionally with a mud base. Breeds in Eastern North America, north of the United States, in May.

757a. BICKNELL'S THRUSH, *Turdus aliciae bicknelli*. Eggs, indistinguishable from those of No. 757. Breeds in the mountainous parts of the Northeastern States, Catskill, White Mountains, etc., in June.

758. RUSSET-BACKED THRUSH, *Turdus ustalatus*. Eggs, pale bluish green, spotted and blotched with reddish brown and lilac; $.65 + .90$ to $.69 + .94$. Nests placed in trees, composed of twigs, leaves, grass, and bark, etc. Breeds in the Pacific coast of North America, from Alaska to California, in May.

758a. OLIVE-BACKED THRUSH, *Turdus ustalatus swainsonii*. Eggs, indistinguishable from those of No. 758, and the nests and nesting habits are similar. Breeds in Eastern North America, from Northern New England northward, in June.

759. DWARF HERMIT THRUSH, *Turdus aonalaschkæ*. Eggs, indistinguishable from those of No. 756, and the nests and nesting habits are similar. Breeds in the Pacific coast region, from California to Alaska.

759a. AUDUBON'S HERMIT THRUSH, *Turdus aonalaschkæ auduboni*. Eggs, indistinguishable from those of No. 756, and the nests are similar. Breeds in the Rocky Mountain region, from the northern border of the United States, southward.

759b. HERMIT THRUSH, *Turdus aonalaschkæ pallasii*. Eggs, indistinguishable from those of No. 756, and the nests and nesting habits are similar. Breeds in Eastern North

America, from Southern Massachusetts, where it is not very common, northward, in June.

760. RED-WING THRUSH, *Turdus iliacus*. Eggs, 4, oval, pale green, spotted and blotched with reddish brown; $.81 + 1.06$. Nests placed in bushes, composed of sticks, weeds, and coarse grass, mixed with a little clay. Extralimital; breeds in the northern parts of the Old World. Bird accidental in Greenland.

761. AMERICAN ROBIN, *Merula migratoria*. Eggs, often 3, commonly 4, rarely 5, and very rarely 6, oval, greenish blue, generally unspotted, but rarely marked with dots of reddish; $.80 + 1.05$ to $.85 + 1.26$. Nests composed of mud and grass, placed on a platform of coarse grass, lined with grass. Breeds in Eastern North America, west to the Rocky Mountains, from near the southern border of the United States northward to the Arctic coast, in April, May, and June, depending on latitude.

761a. WESTERN ROBIN, *Merula migratoria propinqua*. Eggs, indistinguishable from those of No. 761. Breeds in Western United States, from the eastern base of the Rocky Mountains westward, in May.

762. SAINT LUCAS ROBIN, *Merula confinis*. Eggs, unknown. Breeds in Lower California.

763. VARIED THRUSH, *Hesperocichla naevia*. Eggs, 4 or 5, oval, bluish green, distinctly spotted and blotched with dark umber brown; $.78 + 1.10$ to $.80 + 1.13$. Nests placed in bushes, composed of twigs, grass, and moss. Breeds in the Pacific coast region of North America, from Behring's Strait to California, in June.

764. RED-SPOTTED BLUETHROAT, *Cyanecula succica*. Eggs, 4, oval, greenish, so thickly spotted with olive brown as to obscure the ground color; $.50 + .75$ to $.55 + .78$. Extralimital; breeds in the northern parts of the Old World. Bird casual in Alaska.

765. WHEATEAR, *Saxicola cenanthe*. Eggs, 4, oval, pale

blue; $.68 + .80$ to $.69 + .81$. Nests placed on the ground, composed of grass, feathers, etc., lined with soft material. Breeds in the Old World, and at least occasionally in Greenland, Alaska, and Labrador.

766. BLUEBIRD, *Sialia sialis*. Eggs, 4 to 6, oval, pale blue or occasionally white; $.62 + .75$ to $.68 + .80$. Nests placed in holes of trees or in martin boxes, composed of grass. Breeds in Eastern United States, west to the base of the Rocky Mountains, and from Florida north to Manitoba, Ontario, and Nova Scotia, in April and May.

766a. AZURE BLUEBIRD, *Sialia sialis azurea*. Eggs, indistinguishable from those of No. 766. Breeds in Southern Arizona and Eastern Mexico.

767. WESTERN BLUEBIRD, *Sialia mexicana*. Eggs, indistinguishable from those of No. 766, and the nests and nesting habits are similar. Breeds in Western United States, from the eastern base of the Rocky Mountains to the Pacific coast, in March.

768. MOUNTAIN BLUEBIRD, *Sialia arctica*. Eggs, 4 or 5, oval, very pale blue, size of those of No. 766. Nests placed in holes of trees or in cliffs. Breeds in Western North America, from the western parts of the plains to the Pacific, and north to Great Slave Lake, in June.

APPENDIX.

CORRECTIONS AND ADDITIONS.

THE foregoing work was written three years ago, and the first parts were then put into type. Consequently, there have been many additions to the fauna, during this time, and, unfortunately, some changes have been made in the nomenclature; besides this, the eggs of some species have since been discovered. Through press of business, I have been largely dependent upon proof-readers, who, although perfectly competent as regards the general text, have, naturally, allowed some errors in the Latin names to escape their attention. These are, in a measure, corrected here.

5. Eggs, 4 or 5, $1.72 + 1.99$ (Ridgway).

8. 2d line for No. 8, read No. 7.

13a. Eggs are a little larger than those of No. 13; $1.84 + 2.74$.

16. In first line, for *alenticus* read *aleuticus*.

22. Is not now considered North American.

23. Eggs, 1, oval, buffy, sprinkled with brown of varying shades; $1.40 + 2.10$ to $1.42 + 2.14$.

26. Eggs, 1, oval, buffy, of varying shades, thickly spotted and dotted with dark brown; $1.38 + 2.00$ to $1.40 + 2.03$.

41. In first line, for *bierirostris* read *brevirostris*.

After 42 add 44a. POINT BARROW GULL, *Larus barriovianus*. Eggs, 3 or 4, oval, varying from bluish white to dark brown, spotted and blotched with rounded markings of brown and black; $2.03 + 2.05$ (Ridgway).

46. Eggs, similar to those of No. 41a, $2.00 + 2.88$ (Ridgway).

52. First line, for PALLUS GULL *Larus cachinnans*, read VEGA GULL, *Larus vegæ*.

61. Eggs measure $1.30 + 1.90$.

62. First line, for *sandwichensis* read *sandvichensis*.

83. Eggs, oval, white; $2.60 + 4.15$ to $2.63 + 4.35$.

FAMILY VI., first line, for PROCELLARINÆ read PROCELLARIDÆ.

93. Eggs, 1, elliptical, white, $1.25 + 1.75$ to $1.27 + 1.79$.

94. Eggs, 1, elliptical, white, $1.75 + 2.55$ to $1.78 + 2.55$.

99. Not North American.

99a. Should be 99.

106. In first line LEACHE'S read LEACH'S.

After 106 add 106a. GUADALUPE PETREL, *Oceanodroma macrodactyla*. I have never seen descriptions of the eggs. Breeds on Guadalupe Islands, Lower California.

After 114 add 114a. BLUE-FOOTED BOOBY, *Sula gossii*. Eggs, 1, similar in size to those of No. 114.

After 115 add 115a. BREWSTER'S BOOBY, *Sula brewsteri*. Eggs, 1, similar in size to those of No. 115. This and the above breed on islands in the Gulf of Lower California.

157. Eggs, greenish buff or grayish green; $1.60 + 2.28$ to $1.62 + 2.30$.

159. First line, for EIDER, *Somateria molissima*, read GREENLAND EIDER, *Somateria molissima borealis*.

172c. Eggs, 6 to 10, dirty white; $1.98 + 3.00$ to $2.00 + 3.05$.

191a. First line, for *neoxina* read *neoxenus*.

200. First line, after HERON add *Ardea coerulea*.

201. First line, after HERON add *Ardea virescens*.

After 201 add 201a. FRAZAR'S GREEN HERON, *Ardea virescens frazari*. Eggs, unknown. Breeds in Lower California.

204. After CRANE add *Grus americana*.

210. Eggs, not dissimilar to those of No. 208; $1.24 + 1.75$ (Ridgway).

After 211*a* add 211*b*. SCOTT'S RAIL, *Rallus longirostris scotti*. Eggs, similar to those of No. 211. Breeds in Western Florida.

211*c*. CARIBBEAN CLAPPER RAIL, *Rallus longirostris caribæus*. Eggs, unknown. Breeds in the West Indies, Gulf Coast of Mexico, and Southern Texas.

228. First line, after WOODCOCK add *Philohela minor*.

236. Eggs, 4, pyriform, pale olive buff, varying to bright brownish buff, spotted with Vandyke brown or deep umber, the dark markings sometimes predominating over the ground color (Ridgway).

239. Eggs, 4, pyriform, pale grayish buff, varying to pale olive greenish, boldly and heavily blotched with rich Vandyke brown and clouded with purplish gray; 1.02 + 1.44 (Ridgway).

244. Eggs, 4, pyriform, pale grayish or greenish buff, spotted with deep brown (Ridgway).

263. First line, for *Actis* read *Actitis*.

After 286 add 286*a*. FRAZAR'S OYSTER CATCHER, *Hæmatopus frazari*. Eggs, unknown. Breeds in Lower California.

288. Eggs measure .94 + 1.22 (Ridgway).

After 289*b* add 289*c*. CUBAN BOB WHITE *Colinus virginianus cubanensis*. Eggs, indistinguishable from those of No. 289*a*. Breeds in Cuba and at Miami, Southern Florida.

290. Not North American.

387. First line, after CUCKOO add *Coccygus americanus*.

389. First line, after TROGON add *Trogon ambiguus*.

396*a*. First line, after *scalaris*, for *encasatus* read *lucasanus*.

After 597 add 597*a*. WESTERN BLUE GROSBEAK, *Guiraca carulea eurhyncha*. Eggs, similar to those of No. 597. Breeds in Southwestern United States, north to Colorado and California.

661. First line, after WARBLER add *Dendroica striata*.

NOTE TO SUBSCRIBERS.

While the first numbers are going through the press, some new species of birds have been added to our fauna, and some eggs, hitherto unknown to science, have been described. These will be found under their proper numbers in an appendix which will appear with Part 8. The reader will therefore consult this before concluding that the eggs of any species are "unknown" and also for new additions, for here the book will be brought up to the latest date. All measurements are made in inches and hundredths of inches.

C. J. MAYNARD.

